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American Optical Company

An Historical Sketch read by
George W. Wells
before the
Quinabaug Historical Society

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Southbridge, Mass.

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VOL. 2. NO. 17

AMERICAN OPTICAL COMPANY.

READ BY GEORGE W. WELLS,

AT MEETING OF SOCIETY, APRIL 26, 1909.

PART ONE.

In writing the history of the optical business in Southbridge I find it more difficult to get necessary data from the time the business was commenced, in 1833, until the year I came to Southbridge, 1864, than I had anticipated, although I find a mass of information through the old books, and from records and clippings that have been preserved. I regret that I did not avail myself of the opportunity to procure first hand information from the man who established the business, William Beecher, as I spent many interesting hours talking over the olden times with him, but did not take memoranda as I ought. The same would apply to Mr. Putney, and, of course, in the many years in which I was so pleasantly associated with Mr. Robert H, Cole as a fellow worker I should have gathered very much more information than I did.

I decided several years ago that I should undertake to write the history of the business at some time, but the time did not seem to arrive when it was convenient. When requested by the officers of the Historical Society to take up the matter, I could not refuse, and have endeavored to get accurate information, as far as possible, feeling that it was unsafe to wait longer before making records of everything pertaining to the business that it was possible to obtain.

As far as the business is concerned from 1833 until 1864, I have to gather from what others have done. From 1864 to the present time, I encounter one serious difficulty, and that is, matters of a personal nature of my own connection with the business will enter

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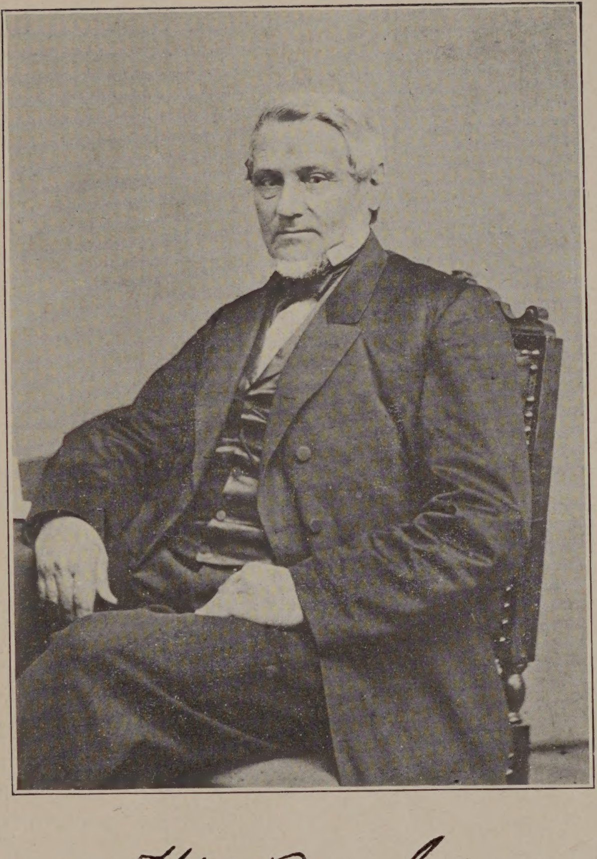
into the sketch too largely, but, under the circumstances, I hardly know how this can be prevented.

I thought that not only the history of the business in Southbridge should enter into the sketch, but that of all the various companies that have been formed by men once associated with the parent company. In making investigations I find a large number of these, and regarding many of them it is difficult to get accurate information. In endeavoring to gather this information, naturally, the broader field of the business throughout the country, as far as it related to spectacles, eyeglasses, spectacle lenses, etc., seemed to be brought prominently forward and I finally decided that I must endeavor to cover the entire field. It is not necessary, however, that this should be made part of the history as it should be presented to the Historical Society. It will be understood that it is impossible that this sketch can be brought into one paper, even if it is confined to the parent company from its beginning, so that this present paper will treat only of the business from its inception in 1833 until 1869, the year the American Optical Company was incorporated.

Many of our people have understood that the spectacle business in this country had its origin in Southbridge. This is not the case, however. Spectacles in small quantities were made in several other places before they were made in Sonthbridge, so that Southbridge cannot claim priority as far as the first manufacture of spectacles is concerned, but it can claim that there is no concern dating back of 1833 that is in existence today excepting our own. The small beginning of William Beecher in 1833 has never ceased to exist, and while the business was small for many years, it has always been active, and a factor in the manufacturing interests of the town, especially after the sixties.

The invention of glass is credited to the Phoenician merchants, and a lens, evidently used for optical purposes, has been found below the ruins of old Ninevah. After the Romans conquered Egypt, they introduced the art of making glass into Italy. Nero used a large jewel in the shape of a lens in order to enjoy a better sight of the fights of the gladiators. Roger Bacon in England was the first to produce or describe a convex lens, but it is not stated that he ever combined these lenses into spectacles.

Spectacles proper, that is glasses mounted so as to retain themselves upon the face, were invented, probably, in Florence between 1280—1300. A tombstone there states, "Here lies Salvino de Ar-



Wm Beecher.

mati, inventor of spectacles. May God pardon his sins." However, tombstone testimony is not infallible. This man kept his process of manufacture a secret, but a clever monk, Allesandro di Spina, made spectacles by using Armati's as a model, and made public their use. An old painting of the date of 1480 shows a pince-nez. In the Campo Santo, Pisa, is a large painting representing the twelfth century. In it, the Queen of Sheba in all her glory, is carrying a lorgnette attached to a gold chain, in the fashion of today.

Charles II of England was the first to use eyeglasses for the improvement of sight. He was born with myopic astigmatism and accidentally looking through a small lens, found his imperfect vision aided. He was living in exile in France, and after making six thousand lenses, the artisan found one that gave the Prince practically perfect vision. After his return to England, glasses were worn as ornaments.

Benjamin Franklin invented bifocals in 1789. Thomas Young discovered the use of cylindrical lenses in 1801, and Airy, the astronomer, applied them to correct astigmatism in 1827. The frames of bone, horn and shell were clumsy, until the use of metal in the nineteenth century.

The center part of the town of Southbridge, including the water power and land now covered by the Center Village, was held by Moses Marcy; that above, now Globe Village, by William Plimpton; above him by John Plimpton, covering Westville. The land below Mr. Marcy was occupied by Col. Thomas Cheney, on both sides of the river as far as Sandersdale, thence on the south side to the land bought by John Vinton of Stoneham in 1738.

Woodstock was settled in 1686 and Oxford in 1713. The easterly part, or what is now Southbridge, was not practically settled until about 1733.

One hundred years later the first spectacles were made in Southbridge.

DATES OF COMMENCEMENT AND CONTINUATION OF THE OPTICAL BUSINESS NOW AMERICAN OPTICAL COMPANY.

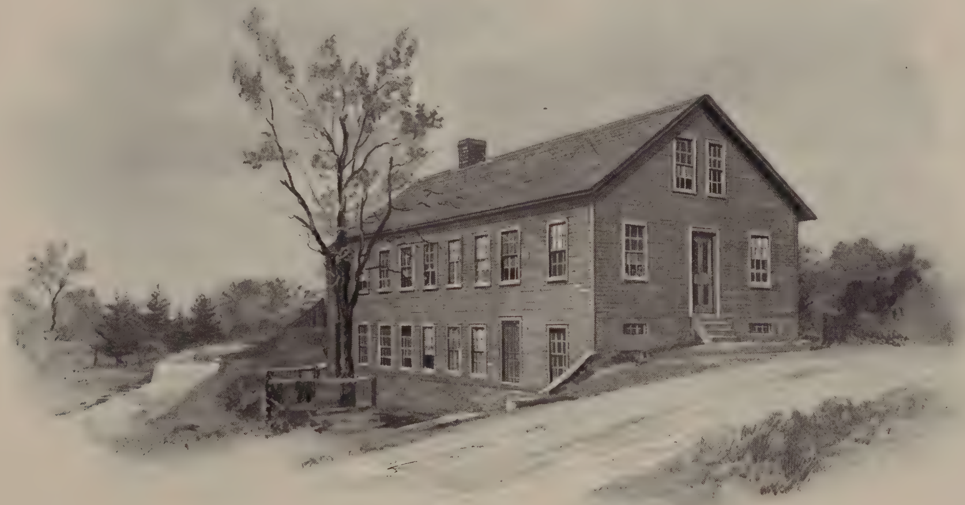
1833—1840	William Beecher.	(In Jewelay store Hartwell's corner)
1840—1842	Ammidown & Putney.	(Business located at the old Spectacle Shop, near railroad bridge, now Hyde M'f'g Co.)

1842—1849	Ammidown & Son.	(Holdridge & L. H. Ammidown)
1850—1851	Ammidown & Co.	(L. H. Ammidown and Robert H. Cole)
1851—1854	Ammidown & Co.	(L. H. Ammidown, Robert H. Cole and Wm. Beecher. L. H. Ammidown died in 1853)
1860	Beecher & Cole	(William Beecher, Robert H. Cole and E. Merritt Cole)
1862—1866	Robert H. Cole & Co.	(Robert H. Cole and E. Merritt Cole)
1866—1869	Robert H. Cole & Co.	(Robert H. Cole, E. Merritt Cole and A. M. Cheney)
1869	American Optical Co.	(Robert H. Cole, President; George W. Wells, Clerk; E. M. Cole, Treasurer)

William Beecher was the pioneer in the spectacle industry in Southbridge. He was a native of Southbury, Conn., the son of a farmer. When a young man he located in Providence, R. I., and learned the trade of jeweler. He came to Southbridge in 1826 and engaged in business for himself in a shop where Hartwell's drug store now stands. The first floor was devoted to the jewelry and watch business. R. H. Cole, Liberty Phelps, Billings Farrington and others learned the trade in this shop. Mr. Beecher was a skilful mechanic and developed a rare genius as an inventor. Beginning in 1833 he made silver spectacles at times, using the second floor for this purpose. He invented tools and devices for their manufacture, which lessened the cost of production materially. The business increased to such an extent that a new location was sought, in 1839, on lower Main street, the site now occupied by the Hyde Manufacturing Co.

This land was a part of the 500 acres granted to Rev. Caleb Rice as the first settled minister in Sturbridge in 1736. His salary at that time was $160 and fifty cords of wood annually. He died on September 2, 1759, and October 24, 1769, his executors deeded a portion to Benjamin Freeman, who built a blacksmith shop and trip-hammer on this privilege. It afterwards passed into the possession of John Waite, May 26, 1801.

The deed defines the boundaries of the tract of land containing three acres and thirteen rods and, grants the privilege of building a dam above on the land of the grantor for the purpose of flowing a



ORIGINAL FACTORY OF AMERICAN OPTICAL COMPANY (Occupied from 1839 to 1872).

pond to save water for his benefit at any time, provided the dam be so constructed as not to injure the mowing above. The fences are to be maintained. Other owners have been :

October 11, 1806, James B. Mason.

March 24, 1811, Edward Morris and L. Morris.

1815, William Foster.

April 14, 1818, Calvin Ammidown.

April 11, 1821, J. K. Smith (The water privilege and blacksmith shop are named)

August 10, 1824. Otis Richardson, (A grindstone is mentioned)

November 9, 1828, Chester Cummings

March 16, 1836, Royal Smith.

August 22, 1839, William Beecher.

The same land is mentioned, but the starting point is given "at the corner of the town pound, with a wheelwright shop, water privilege, together with the dam, ditch and trench"

March 15, 1841, Holdridge Ammidown.

January 1, 1852, L. H. Ammidown and R. H. Cole.

January 1, 1860, R. H. Cole.

March 16, 1869, American Optical Company.

Mr. Beecher tried to buy steel spectacles of American manufacture, but was told by Palmer & Batchelder that they could not be made in this country. He obtained one pair as a sample, paying three dollars, the importer's price, and experimented until he manufactured them in this new shop prior to 1843. undoubtedly the first steel spectacles made in America.

Mr Beecher sold the business to Ammidown & Putney, but was hired by Mr, Ammidown for one year to teach his son.

In 1851 he acquired an interest again in the concern, which then embraced L. H. Ammidown and R. H. Cole, besides Mr. Beecher, known as Ammidown & Co. He retired in 1862.

One of the valued helpers was Jairus Putney, who became the chief mechanic and was a partner of Mr. Beecher from 1840-1842 He originated new ways of doing the work and furnished many new ideas. After remaining several years he retired.

The man connected with the business the longest was Robert H. Cole. He was born in Worcester, Mass., May 18, 1818, the son of Elisha and Mary McKinley Cole. His father removed to Southbridge the same year. At the age of fourteen—1832—he was apprenticed to Wm. Beecher, to learn the trade of jeweler. As Mr. Beecher introduced the manufacture of silver spectacles during this time—1833—Mr. Cole was identified with the industry from its very inception. He bought the jewelry and book business of Mr. Beecher and conducted it for some years. Finding that his health did not permit constant bench work, Mr. Cole sold out his jewelry store and associated himself, in 1850, with L. H. Ammidown, the successor of Wm. Beecher in the manufacture of spectacles.

Mr. Cole held a constantly growing interest in the firm under the varied changes, becoming its head in 1862, and when the American Optical Company was organized in 1869 he became the President and held that office until his retirement in 1890. He died in 1900.

From a memoir of George N. Briggs, Governor of Commonwealth from 1844 to 1851, we quote a letter:

"Southbridge, December 1, 1845.

Governor Briggs:

Will your Excellency please accept the accompanying present as a small tribute of respect for your principles in favor of mechanics. Though not a voter should I live to the age of manhood I hope to be correct in principle, and be governed by those for which you have so ably contended. My present is small, but I have exercised my best ingenuity in workmanship, the whole having been done by my own hands. Hoping that you will find the spectacles useful, and that you will live a long and happy life, is the sincere wish of

Yours, truly,

Wm. E. Foster."

The Governor sent a fitting reply.

A vivid idea of life in the old shop is given by Mr. H. C. Wells in the following account:—

October 20, 1851, I arrived in Southbridge The next morning I presented myself at the "Works" of Ammidown & Co., composed of Lucius Ammidown, William Beecher and Robert H. Cole, and commenced to "learn the trade" of making specs.

Alfred E. Holmes, being the youngest apprentice, gave me my first lessons in sweeping out the shop, bringing water for the help, wood for the stove, and charcoal for the forge. Mr. Ammidown melted some bars of silver and I was told to roll them to a certain gauge. They were rather unruly in my hands and thinking to hold them in place my hands were badly cut. The "boys" said it was a part of the "trade." At night when the "Company" left I was entrusted with the valuables of said "Company," which consisted of several watches, chains, the gold stock in process, etc.

They were put into a small leather trunk with trays, and I carried it to my boarding place, and put it under my bed for safety from burglars. It also contained the key to the safe. Said "safe" was about two feet square, made of wood and covered with sheet iron, fastened on with nails with very large heads. It was not fire proof, but burglar proof (?) as the keyhole did not show, it being covered by sliding one of said nails over the keyhole. We boys used to ask visitors to find the keyhole to our safe, thinking it a great joke. The "Company" kept their books, and silver not in process in this safe. The help were not required to put up their work at night, each one leaving it on his bench. We all had a key and the last one out locked up the "Works" for the night. We could commence as early and work as late at night as we chose. Each one had a small oil lamp to work by, and the youngest apprentice had to collect, fill, and trim them for the help, which consisted of twelve or fourteen, except the "Company." I can recall most of them, Francis M. Vinton, Harrison Vinton, Elon Greene, Abiel Coombs, Samuel Hammond, Edwin Marble, Alfred E. Holmes, E. M. Cole, Ebenezer Edmonds, and in March '52 Alpha M. Cheney came and took my place as "boy," and I gave him his first lessons in "learning the trade," then I became a "bench hand" making specs.

Apprentices' salaries ran very small in those days, mine the first year being $30.00 cash, the second year $40 00, and the third year $50.00 and board, but Mr. Ammidown was very kind to us "boys" giving us "overwork." The Company made many goggles and eye protectors, and he gave us 2 cents apiece to cut them out of large sheets and solder them, etc., which we did evenings, working as late as 12 o'clock on Saturday evenings sometimes.

The season of '52 was very dry, and of course Cohasse Brook gave out, and the Company put in power in the basement. A large wheel belting on to the small pulley at the polishing wheels, and a large crank turned by a large colored man by the name of Jenkins, was the power. He received 10c per hour. The next season polishing wheels were fitted up at the Central Mills, and when we had work to polish we took it in our little basket and went there to do it. As business was increasing the Company put in a steam plant in 1853, and Abiel Coombs ran it, and sometimes Mr. Cole.

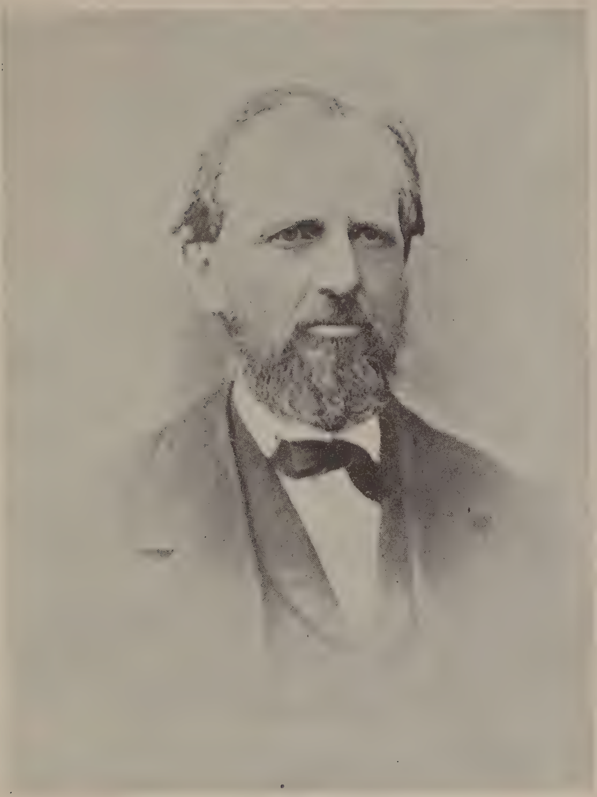
Mr. Beecher was a hard working man, and when we had stock to roll out by hand, he was always on one of the cranks. It took four of us "to man the rolls," and it was no *boys' play*, I can tell you. Some of us would remark about it being hard work, but Mr. Beecher would say, "It will be all right when you get used to it." Tapering steel temple stock was the worst job of all, rolling it in and then back to get the taper. The Boss took a pinch of snuff often, and we all took a sweat. Eccentric rolls were made later and it was fun to see the stock go through.

The specs were all made "by the piece." Each one wound the eyes, made the nose pieces, sawed off the end pieces, and joints, and tied them on to fronts. The first dozen or two made us "tired" as they would not stay tight and true. Then we cut our own glass, marking around the pattern with an old three cornered file ground on the end, and then ground them into frames at the stone, using one foot for power. The price was 37½c per pair for straight temples—$4.50 per dozen. We would make six pairs per day, and more if we worked extra. When I came into the works there was but one gold hand, Francis M. Vinton ; the others were on silver. We boys worked on the cheaper grade of work, called burnished work. We made many round temples drawing them out and making them round by striking on the top of a rounder with a hammer. I will say that before my three years of apprenticeship expired there were quite a number added to the working force—Willard Bowen, Samuel Wadsworth, Charles Edmunds, and others later.

When I came to town I went to board with Mr. Beecher.

I was with Mr. Ammidown the last year of his life. He was like a brother to me. His son, Deacon Lucius E. Ammidown, was perhaps a year and a half old, and often crept to my place at the table and sat on my knee and ate crumbs from my plate, The Company was not strict as to work hours. We often went down the river in the winter to hook suckers up through a hole in the ice, to have a short game of ball on the grounds now occupied by Clemence Box Shop, or to fly a kite which was some 14 feet long, let loose and drawn in by a windlass, or to pitch a game of quoits. But if the company had an order they were in a hurry for we gave it our undivided attention, working extra and getting it out as soon as possible. When I arrived in town the Pierce campaign was on and we marched many miles to the music of the band—Thompson, bass; Abiel Coombs, snare drum ; Ebenezer Clark, fife. Uncle Abiel could beat any of the boys of today with his double roll on that drum of his."

Several items are gleaned from two letter books containing letters



Robt. H. Cole

of Ammidown & Son to their customers and others, covering the time from May 27. 1843 to April 10, 1848.

It is of interest to note that copies in these books are made with carbon paper. Some of the old carbons are still in the books and make fair copies. It is a popular impression that carbon copying is of rather recent date, but these books show it to be more than sixty-five years old.

The following extract from letter of July 16, 1845, will indicate that the men at the head of the business did not hesitate to be outspoken when their opinion was asked:

Southbridge. July 16, 1845.

Messrs. E. & E- S. Brigham.

Gent:—

As to our "unfavorable opinion", "Malice", breaking down your business, etc ." We would say, when asked, as we frequently are, what we think of Mr Paine's glass, which we suppose you sold, we reply that in our opinion it is a humbug, that it is made of the common glass and bent into the shape it is by heat, that all the grinding he does to it is done around the edge, that it is not so perfect nor so good as it was before it was so bent, and that it is sold at a *most exorbitant price.* Of this we have more proofs than one, and if this is the business of your choice we say "*Go ahead*", but when a man honestly asks our opinion we shall give it free of expense. We do not, however, consider it an opposition to our opinion, but rather an advantage, and that too without the "1000 to 1500 dollar business" which we had rather see before we reckon the profits We understand that it has been your intention to come a "Grab Game" on us, for a lot of spectacles on credit, and your real success may account for the letter we have received. However, we feel we have not lost anything yet, and we do not intend to in the future.

Yours respectfully,

AMMIDOWN & SON.

October 24, 1845.

Mr. Benj. Pike, Jr.

Dear Sir :

We send you 3 dozen steel spectacles to your order. The octagon ones are the first ever made by any of our present workmen, as also will be the eyeglasses you order, but which we shall not be able to send under three or four weeks, as we wish to make up a few before we commence on an order for anyone.

Yours respectfully,
AMMIDOWN & SON.

LIST OF GOODS MANUFACTURED IN 1850.

Gold, coin silver, steel and steel hand spectacles.
Steel spring eyeglasses.
Quizzing glasses, plated and wire goggles.
Gold and silver vest fob chains, etc.
Eye Protectors.
Gold and silver case watches were carried in stock.
Spectacles made to order in any size and shape.
Split glass spectacles, made to order only. Bifocal.

Steel eyeglasses and spectacles were made in 1843 or earlier. Four weeks were needed for filling orders for eyeglasses and two weeks for spectacles.

1846, April. Samuel L Morse made all the steel. Ebenezer Edmonds later worked with him and they had a room by themselves.

In 1851 there were only two workmen on steel:

1 on quality 1 and 2	1 doz. pr. per week
1 on quality 3 and 4	2 doz. pr. per week

The gold work was started under L. H. Ammidown, about 1848. The gold wire was hard to find in market and some of it came from New York. It was still harder to work, for each time it was annealed, it cracked. By melting several times, using sal ammoniac, and reducing the alloy, it would finally take shape. There were no dies for cutting out anything and all the work had to be filed. A fiddle-bow drill was used for drilling the end pieces.

MATERIALS USED.

The gold and silver was mostly coin.

California $50 gold pieces are mentioned once, if obtainable at par French crowns were specified in one order, but Portugese dollars had to be substituted; only 15 crowns could be bought.

Mexican silver was used as late as 1868.

Crucible cleanings, stonings, polishings, sweeps, etc., were sent to a refiner and the gold returned in 17k wire ready for drawing; the silver in press silver. German silver came in bars 5 inches wide, and plated metal is recorded once.

1851—Plated brass or brass plated with 16k or 18k gold, rolled down or in wire, was sought. Was this a suggestion for gold filled work?

In the inventory of 1849 we find steel wire entered at 75c per lb., iron wire 25c and 23c per lb

A steam engine was installed in summer of 1853. This engine was of the oscillating type and would be quite a curiosity today. Mr. Robert H. Cole often attended to the running of this engine when the water power gave out.

In the inventory of 1846 we find :—

No. 3 English convex spectacle glass	$6.50 per gross
No. 1 Convex spectacle glass	$12 00 per gross
Concave spectacle glass	$24 00 and $42.00 per gross
Convex Perifocal	$30.00 per gross
Colored glass	$7.50 per gross

The perifocal lenses were produced by taking the convex lenses, placing them upon a ring or circular metal piece that would support the edges, placing the same in a furnace, heating it to a certain degree of heat that would cause the lens to fall in the center into the form of a periscopic lens, or meniscus. These they gave the name of "Perifocal".

About 1851 the firm discontinued the manufacture of these perifocal lenses and wrote to their customers that they had disposed of their furnaces and in place of this style of lens used the French periscopic or meniscus, as being a much better lens and at a less price. This style of a lens re-formed in this way by heat, was very objectionable, as it distorted the lens, and it was not fit for use as a spectacle lens.

There is an item in this inventory of a press at $15.00, This was, no doubt, the hand press used in punching the temples or straight sides for the spectacles, and the first press of this style ever used in the manufacture of spectacles.

The first mention of a patent is dated October 31, 1850. It was for an improvement in temples. Five cents for every pair of silver spectacles and twenty cents for every pair of gold spectacles made was to be paid to the person securing the patent, John P. Paine, Esq

No "Peddlers" were employed. but men took goods to sell at their own risk, making from $25 00 to $50.00 per month, besides expenses Later an offer was made for a supply at $11.50 per dozen providing the buyer would pay 12½ per cent. interest for shop wear, etc., annually. Most of the goods went to wholesale dealers in Boston and New York.

Delays in filling orders were caused by failure of water power due to exceeding dry weather, and inability to secure competent workmen.

1843 "We feel thankful you do not want your spectacles this fall, for we have orders for 70 dozen of different kinds already." (1 hour's work for A. O Co. today.)

Sept 18, 1843. "We should have sent the whole order had it not been for the circumstances that the receipt of your order found all our workmen attending a Camp Meeting about a half mile distant, which continued throughout the week. This, although not as we expected, we hope you will consider an excuse for not sending the whole at this time."

(1852) A customer who asked for a lower price was refused it, because spectacles were a kind of staple article upon which small profits could be made with much competition.

October 30, 1849, $500.00 worth of goods were sent to California on commission, the profits to be shared.

Express "bundles" were sent by way of the Western Railway at Charlton Depot, but, on account of excessive charges, an office was asked for at Webster Depot, which was used later.

The Southbridge Bank refused to take paper on New York either in drafts or bills, excepting for collection, for which they charged $1 00 besides postage, interest, etc , making $1 25, but checks upon Boston were taken. The term "New England money" was used.

Money was ordered delivered to J. Haggerty (the stage driver).

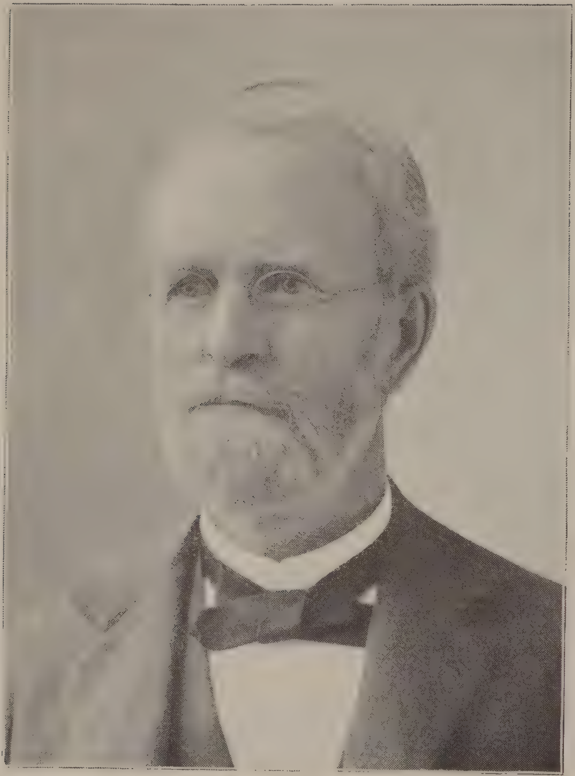
Insurance of $1,000.00 upon buildings, etc., and $2,000.00 upon machinery, stock, etc., was placed before 1853.

PERSONAL ITEMS OCCUR.

1852.	L H. Ammidown. Services as Assessor 30 days.	$30.00
1853.	Wm Beecher. Services as Selectman,	10.50
	One cow bought of Geo. A. Dresser,	18.00
	22 bushels Coal at 9c,	1.98
1851.	Paid Alpha M. Cheney for cutting wood,	.75
	Highway Taxes of 5 men at 20c,	1.00
	Board 10s 6d per week ($1.75).	

Other prices were given in shillings and pence.

Apprentices served a term of three or four years, the youngest



H. C. Mills.

beginning at fourteen years. Board was furnished to all, and the younger ones had three to six months' schooling.

The wages varied from $20.00 for the first year of the youngest to $60.00 the last year of the oldest.

They were given the privilege of working upon stints from one-half to three-quarters of the time after the first year, making a sum nearly equal to the wages.

Apprentices were expected to make a certain quantity per day.

They got out temples, soldered joints, rolled and cut them out.

Probably the last apprentice was taken in 1866. (Wm. H. Armes)

Owing to piece prices and the variation of the skill and rapidity of the men, as well as changes in the demand for goods, the wages differed varied even with the same men. In November 1860 there is a range from $20.50 for Adoniram Coombs to $40.00 for Ebenezer Edmonds for the month's earnings. James Freeman received $45.00 in September 1861 and $87.50 in October. Three men averaged $64.00 per month for three good months of '63, while May 1865 shows F. M. Vinton had $78.00 and Wm. Freeman $49.00. A salary by the day was paid A. M. Cheney, $1.35 in '63, $1.50 in '64 and $1.75 in '65.

SELLING PRICES.

1843.	Silver Spectacles,	$9.00-$13.75	per doz.
		6.50- 18.00	" "
1843.	Steel Single eyeglass,	9.00	" "
	Double "	15.00	" "
1843.	" Spectacles,	12.00	" "
1850.	Gold Spectacles 14-18K	3.75 7.50	per pair
	12-14K	3.75 6.00	" "
1850.	Steel Spectacles,	7.00- 18.00	per doz.
1853.	Steel Spectacles,	8.00- 20.00	" "
1853.	Silver Spectacles,	8.00- 10.00	" "
	10 per cent. Alloy,	6.00	" "
	Plated Goggles,	2.00	" "
	Wire Eye Protectors,	3.25	" "

Goods were sold at 6 months' credit with 5 per cent. discount for cash.

The yearly sales from 1850 to 1869 show a steady increase from $12,750.00 in 1850 to $50,400.00 in 1868, excepting the years 1860 to 1864, with the lowest period in 1861. From that time onward the rise was gradual until the former figures were resumed in 1865.

SPECTACLES MADE.

1852.	Steel,	2,035	pairs	
	Silver,	11,378	"	
	Gold,	1,506	"	
				14,919 pairs
1853.	Steel,	1,376	pairs	
	Silver,	14,111	"	
	Gold,	3,183	"	
				18,670 "
1855.	Steel,	1,473	pairs	
	Silver,	11,273	"	
	Gold,	2,868	"	
				15,617 "
1857.	Steel,	1,774	pairs	
	Silver,	9,546	"	
	Gold,	3,663	"	
				14,983 "

Gold and Silver melted in 12 months ending May 1 1852:—

Gold,	$2,741.11.
Silver,	3,728.33.

The capital invested in the year 1843 was $4488.40.

Ammidown & Co. was formed on the 2d day of May, 1851, by L. H. Ammidown, Robert H. Cole and Wm. Beecher each partner agreeing to put into the firm of Ammidown & Co. the sum of $2.000.00, making a capital stock of $6,000.00.

The investment in 1860, according to inventory, was $8,250.00.

On the 1st day of January, 1862, agreement was entered into between Robert H. Cole and E. Merritt Cole for a partnership to be known as R. H. Cole & Co.: Mr. Robert H. Cole to furnish all the stock, materials, tools, etc., purchased by him of Beecher & Cole, and to furnish whatever capital was necessary; profits to be divided as further agreed. Capital $7,200.

On the 1st day of January, 1866, an agreement was entered into between Robert H. Cole, E. M. Cole and Alpha M. Cheney, agreeing to carry on the business of manufacturing spectacles at least one year from that date under the name of Robert H. Cole & Co.; division of profits as further agreed. Capital invested $5,204.20.

The account of stock shows a valuation of $6,000.00 in 1847 and an increase to $15,000 in the two years following. After a decrease to $10,000 in 1851, there is a a constant rise to $24,000 in 1857.

EMPLOYEES.

Entered employ before 1846 :—Wallace Cutting, Elon R. Green, Ebenezer Edmonds, D. Putney, Samuel L. Morse, James R. Young, William E. Foster.

Entered in 1846 :—Francis M. Vinton, Elanson Green.

In 1848 :—Willard C. Bowen, Samuel Hammond.

In 1849 :—Abial Coombs, C. S. Edmonds, Edwin D. Marble, Ezra Putney, Harrison Vinton.

In 1850 :—Moses E. Irwin, David Cotton, Alfred E. Holmes.

In 1851 :—E. Merritt Cole, Daniel P. Howard, H. C. Wells.

In 1852 :—Caleb Ammidown, A. M. Cheney. E. B Gibbs. Henry M. Vinton.

In 1853 :—J. A. Wadsworth.

In 1854 :—William Thompson.

In 1855 :—M. C. Brackett, W. L. Ormsby.

In 1856 :—J. A. Cadwell.

In 1857 :—Adoniram J. Coombs.

In 1858 :—Lyman Gibbs, Peter Marcy.

In 1859 :—George Edmonds, B. F. Lee.

In 1860, 1861, 1862 :—0

In 1863 :—William Freeman, James W. Bromley.

In 1864 :—George W. Wells.

In 1865 :—0

In 1866 :—William H. Armes, John C. Bromley, A. E. Cole, H. M. Colton, M. M. Day, Joseph Dupaul, William P. Eddy, Edwin F. Harvey, John F. Hibbard, Charles S. Stewart, E. S. Swift, A. S. Weaver.

In 1867 :—Daniel V. Brown, Nelson Blait, H. N Horton, Lemuel McKinstry, Robert McVey, Charles Potter.

In 1868:—A. E. Baylies, F. G. Blanchard, George W. Cady Felix Covillion, A. E. Cutting, Charles Douty, E. F. Melony, Orin McIntire, George McKay, H. D. Morse, James B. Ware, James White.

In 1869 :—Metcalf Baker, Frank Cady, Newton Cady, Henry C. Cady, Andrew Carey, Daniel Clemence, Fielder Clemence, John Clark, H. A. Cook, J. F. Cooper, Ella Corey, Lewis Eccleston, A. O. Horne, C. H. Hager, John Hayes, —— Jacques, H. A. Kimball, Andrew Lee, Alex Martin, Charles Pratt, Monroe Reynolds, Samuel

Rice, Felix Ritchie, Joseph Stone, Austin Tiffany, E. P. Tiffany, H. P. Tiffany, Albert Whittemore.

The average number employed from 1848 to 1866 was 13. In 1868 there were 35.

The matter of wages is always interesting, but it is somewhat difficult to get data that will give a fair idea. The wages paid some of the men in the early sixties will be of interest to parties now living who knew the workmen.

In making memorandum in regard to wages paid in the earlier times only those are given that seemed to be based on a reasonable month's work, that is, when the shop was running practically full time. Owing to piece prices and the variation of the skill and rapidity of the workmen, as well as changes in the demand for goods, the wages were quite varied, even with the same workmen. We find the following:

In 1860, C. S. Edmonds received in	November	$36.00
Ebenezer Edmonds,	do	40.00
Henry Vinton,	do	40 00
F. M. Vinton,	do	32 00
A. J. Coombs,	do	20.50
H. C. Wells,	do	25.50

In 1861, Henry Vinton received in March $51.00, April $62.00, May $53.00.

In 1861, James Freeman received in September $45.00, October $87.50.

In 1863, H. C. Wells received in October $63.00.

In 1863, F. M. Vinton received in October $66.50.

In 1863, H. C. Wells received in December $65.00, January, 1864, $61.50.

In 1864, M. C. Brackett received in January $72.00.

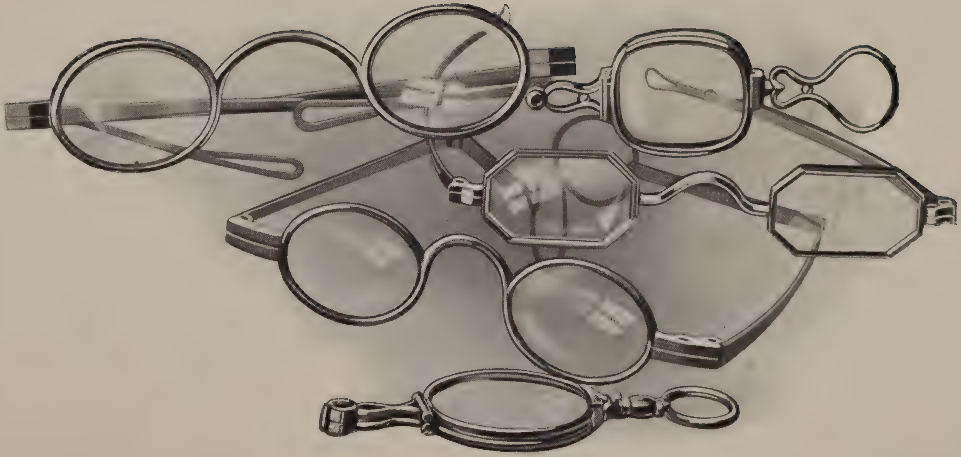
In March, 1864, H. C. Wells was paid $2.00 per day.

In December, 1863, A. M. Cheney was paid $1 35 per day.

In December, 1864, A. M. Cheney was paid $1.50 per day, and in February, 1865, $1.75 per day.

In May, 1865, H. C. Wells received $46.50.
F. M. Vinton received $78.00.
Wm. Vinton received $49.00.
Abiel Coombs received $24.25.
A. J. Coombs received $35.00.

In August, 1865, G. W. Wells received $55.50.



EARLY TYPES OF SPECTACLES AND EYEGLASSES, PRIOR TO 1860.

In December, 1865, G. W. Wells received $80.00.
In 1866, G. W. Wells received $72.00—$75.00.

COPY OF BILL.

Southbridge, July 9th, 1842.

Mr. Francis P. Pratt,

Bought of Ammidown & Son.

32	pairs Silver slide specs at	$10.00	$32.00
3	" " split, at	14.00	3.50
27	" " wire turns, at	11.50	27.87½
25	" " Jack Downing, at	13.50	28.04
18	" " Ladies' Specs at	11.50	17.25
5	" " " Concave at	13.50	5.62½
17	" " " Periscopic,	15.00	21.25
2	" Double eyed, at	25.00	4 16
			$139.71
2	" " " at	21.00	3.50
			$143.21
5	pairs Silver Ladies,	11.50	4.79
4	" " " concave,	13.50	4.50
6	" " Slide Split.	14.00	7.00
			$159.50

Southbridge, July 21. 1842;
Received payment,
AMMIDOWN & SON.

April 2, 1864, George W. Wells commenced work for R. H. Cole & Co., and was one of the first to commence the making of spectacles throughout without first serving three years or more time to learn the trade, He was eighteen years old on the 15th of that month.

The employees at that time, and date they commenced to work, were as follows: Ebenezer Edmonds before 1846, Francis M. Vinton 1846, Charles S. Edmonds 1849, Abial Coombs 1849, Hiram C. Wells 1851, Alpha M. Cheney 1852, E. Merrick Brackett 1855, Adoniram J. Coombs 1857, James Freeman 1860, William Freeman 1860, James W. Bromley 1863, George W. Wells, (April), 1864.

This constituted the whole force of employees at that time with the exception of William Beecher who came in occasionally to make dies.

Mr. Well's bench was on the westerly side of the shop, beside his brother, Hiram C. Wells, who taught him for the first month how to manufacture silver spectacles complete, also the setting of the lenses. He received for his first month's work, $15.00.

July 1st, owing to dull business, there was nothing for him to do in the shop, and he entered the employ of Daniel Perry at haying on his farm in Charlton, near Dresser hill. He received for his sixteen and three-quarters days' work $35.00 and board.

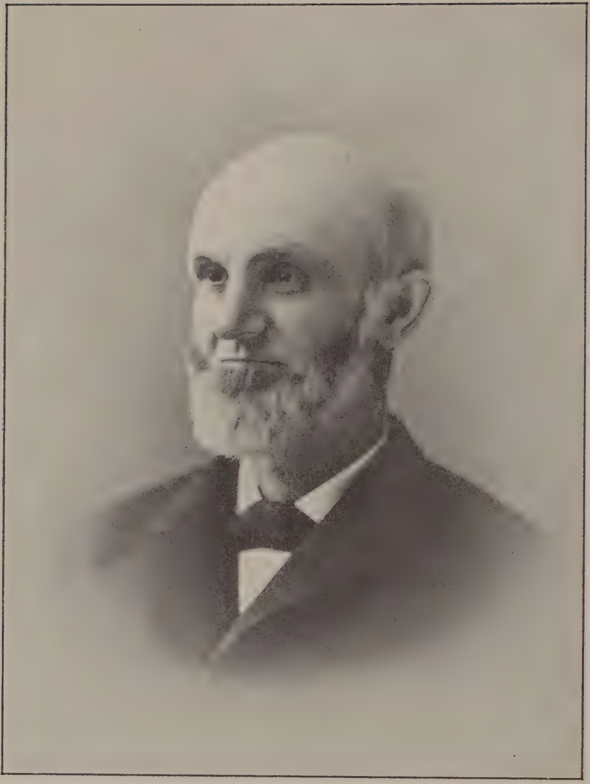
Mr. Perry kindly procured for him a situation in the machine shop at the Hamilton Woolen Co.'s mills at Globe Village, Mr. White being the foreman. He received $1.00 per day, and worked twelve hours. It was customary at that time to go to the shop before breakfast, having half an hour for breakfast, and for dinner at noon.

April 1, 1865, at the request of Robert H. Cole & Co., he returned to their employ and learned the trade of making steel spectacles, working with William Freeman, who taught him the business. Commencing with May 1st he worked for himself making steel spectacles complete, including the setting of lenses, and was paid $5.76 per dozen. The goods were called "Fine Steel Ladies", the best line of steel goods then made. The same quality of frames, or better, are sold today for $1.50 per dozen.

September, 1865, owing to some misunderstanding in regard to quality of work he was promised to make, he left the employ of R. R. Cole & Co. and entered the employ of E. Edmonds & Son in the shop called the "New Spec Shop" situated on the left hand side of Main street below the iron bridge. Here he was employed in the manufacture of steel spectacle frames, and the price paid for the making of frames only was $4.50 per dozen, average wage $75.00 per month.

At the earnest solicitation of his cousin, Mr. Alpha M. Cheney, in behalf of R. H. Cole & Co., he again returned to the old firm on the basis of day wage of $3.00 per day of ten hours, his work then being largely on tools and dies, and spare time the making of steel spectacle frames.

Why the firm could afford to pay a boy of 19 this wage is yet an open question. About this time the methods of manufacturing rapidly changed from the old hand work to partial die and machine work, and a very large proportion of his time was devoted to die



A. M. Cheney

and machine work, and owing to the fact that the firm had no tools and machines on which this work could be done, quite a little of his time was spent at the machine shops at the Globe and at the Print Works, through the courtesy of the Hamilton Woolen Co. and the overseers at the two shops, Mr. White and Mr. Herron.

At this time the eccentric rolls, previously referred to, were made by him, which was the first application of this principle in the tapering of this stock for spectacle temples, also the first Craigleith stone was put in use, primarily for edging the so-called split bifocal lenses.

He also built the first Lens Cutting Machine, after the ideas and drawings by E. M. Cole. This machine, with slight modifications, is now in universal use through the world in all optical factories and job shops.

He also built the first machine for jumping and forming spectacle bridges, and many other devices to shorten and improve the method of manufacture.

He invented the first machine for peening or knocking on end pieces. This machine, with slight modifications, is now in use throughout the spectacle world.

He invented the first machine for automatic milling and tapping of spectacle end pieces, which very materially shortened and cheapened the process, as well as making the work more perfect.

January 11, 1867, he sailed for California by way of the Isthmus, and landed in San Francisco February 2nd. He soon entered the employ of the largest machine building shop in the city and received $4.00 per day in silver for his work. Gold and silver were then at a premium of from 33 per cent. to 42 per cent. Before leaving for San Francisco he put the few hundred dollars he had been able to save from his wages into spectacles, taking them to San Francisco and selling them for the same price as he paid, thereby paying the expenses of the trip, on account of the difference in premium on gold. He was then 21 years old.

He again returned to Southbridge and entered the employ of R. H. Cole & Co , August 22, 1867, and remained in their employ until January 1869, when he, with his brother, decided to enter into business for themselves. These years while in the employ of R. H. Cole & Co. were exceedingly pleasant and profitable in every particular. Mr. Alpha M. Cheney was a friend and companion, with all that implies. Mr. Robert H. Cole and his brother were very kind and considerate and never in all these years was there a word or expression of dissatisfaction or criticism by either party.

In the interests of the new venture, G. W. Wells visited New York and points of New Jersey looking up location for the new industry, but returning to Southbridge he purchased the interests of Henry C. Ammidown in the H. C. Ammidown Co. spectacle plant, formerly E. Edmonds Sons. This was the controlling interest, C. S. Edmonds holding the minority interest.

At this time R. H Cole & Co. offered to take him in as a partner in their firm. This he declined unless arrangements could be made to include his brother Hiram as well. Upon further negotiation it was decided that the two concerns, Robt. H. Cole & Co. and the H. C. Ammidown Co , should be merged into one concern, and the same be incorporated under the name of "American Optical Company." He was not yet twenty-three years old.

These events were the key that led to the forming and locating of the American Optical Co. in Southbridge. There were at this time —1868—thirty-five hands employed by R. H. Cole & Co.

The founders of the business were ambitious, yet careful. They learned much in the school of experience and sought information for improvements. The workmen were few in number, but interested in the welfare of the firm and companions at the bench with their employers. The changes that come with growing conditions are seen when it is noted that the first name upon the payroll of other nationality than American occurs in 1866, a period of thirty-three years after the opening of the business.

Quinabaug Historical Society Leaflets

VOL. 2. NO. 18

AMERICAN OPTICAL COMPANY.

READ BY GEORGE W. WELLS,

AT MEETING OF SOCIETY, NOVEMBER 29, 1909.

PART TWO.

LOWER SPEC SHOP.

A shop was built by the Central Mills Company in 1865 on the north side of Main street, and east side of Cohasse Brook. On June 30, 1866, the building was leased to E. Edmonds & Son, who made steel spectacles here, and to Theodore Harrington for the manufacture of shoe knives. December 26, 1868, the tract of land, shop, water privilege, the right to the penstock leading from the canal from the pond below the Central Mills Co., an opening equivalent to 75 square inches, and also a small house and lot adjoining, were sold to Henry C. Ammidown. After changes in partnership the firm making spectacles was known as H. C. Ammidown & Co., composed of H. C. Ammidown and Charles S. Edmonds; for a short time in 1869 George W. Wells, Hiram C. Wells and C. S. Edmonds were its members under the name of H. C. Ammidown & Co.

The real estate and water privilege became the property of the American Optical Company May 14, 1869.

On May 10, 1873, the land north of the shop was sold to J. M. & L. D. Clemence.

June 12, 1877, Charles Hyde bought the shop and land and converted the shop into a tenement house.

We have traced the growth of the optical business from the small beginning in 1833 by Wm. Beecher in an upper room of a jewelry store on Main street to the organization of a company and the purchase of a building and water power on Cohasse Brook, lower Main street.

On February 26, 1869, the members of these two neighboring firms, R. H. Cole, E. M. Cole and A. M. Cheney of Robert H. Cole & Co., and George W. Wells, H. C. Wells, C. S. Edmonds, of H. C. Ammidown & Co., met for the purpose of uniting in one company and chose the name "American Optical Company" because it was broad in its scope. The object defined was "to manufacture and sell spectacles and eyeglasses of gold, silver, steel and plated metals, also rings and thimbles, and such other like articles as said Company may from time to time desire to make."

The firm was formally incorporated March 6. 1869, with R. H. Cole, President; G. W. Wells, Clerk; E. M. Cole, Treasurer; R. H. Cole, E. M. Cole, A. M. Cheney, Directors.

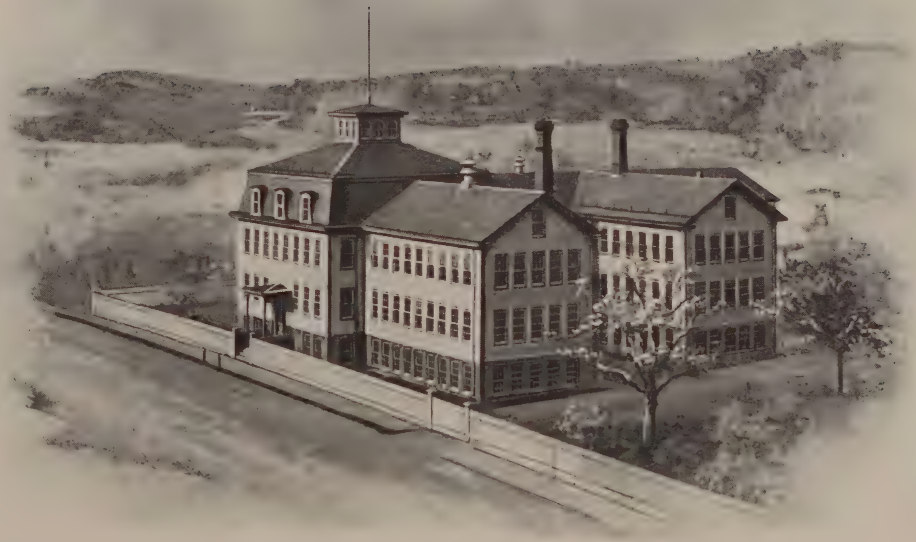
The capital stock, $40,000.00, was subscribed to as follows:—

Robert H. Cole	150	shares
E. Merritt Cole	80	"
Alpha M. Cheney	50	"
Hiram C. Wells	50	"
George W. Wells	40	"
Charles S. Edmonds	30	"
Total	400	"

They agreed to buy of R. H. Cole his real estate situated on the southerly side of Main street, then occupied by R. H. Cole & Co., and pay for the same $1900 00 and to purchase of R. H. Cole & Co. all machinery, tools and stock, paying not over $12,800.00; also to buy the spectacle shop of H. C. Ammidown for $3700.00, and the stock and tools of H. C. Ammidown & Co. for $4700.00.

On January 31, 1870, Hiram C. Wells and Charles S. Edmonds were added to the Directors, and on February 24, 1870, 20 shares of stock were transferred from R. H. Cole to George W. Wells. The capital stock was increased to $60,000.00 on March 7, 1871, and has remained at that figure. Henry C. Cady and Newton C. Cady became stockholders in 1873. List of officers January 1874:—R. H. Cole, E M. Cole, A. M. Cheney, H. C. Wells, G. W. Wells, Directors. R. H. Cole, President; C. S. Edmonds, Clerk; E. M. Cole, Treasurer. E. M. Cole tendered his resignation as Treasurer October 20, 1879. George W. Wells was elected Treasurer November 21, 1879 and Henry C. Cady, Director at the same date, to fill the vacancies. R. H. Cole resigned as President February 9, 1891, and

Geo. N. Wells



FIRST FACTORY BUILT ON PRESENT SITE OF AMERICAN OPTICAL COMPANY, MAIN WORKS. 1872.

George W. Wells was elected to the position and held the office of President and Treasurer until 1903, when his son, Channing M. Wells, was elected Treasurer.

BRIEF SKETCH OF BUSINESS ORGANIZATION FROM 1869, WHEN LOCATED IN THE OLD SHOPS, TO 1872, WHEN NEW FACTORY ON MECHANICS STREET WAS OCCUPIED.

Robert H. Cole, the President, in these earlier years, attended to most of the correspondence, billing the goods and making out the orders, which was often done, owing to the limited amount of business, on scraps of paper, backs of envelopes, etc.; previous to '69 or '70 he was in the habit of looking over most of the goods as they came from the workmen, doing some work in truing and wrapping, shipping, etc. He also visited the trade occasionally to keep in touch with the wants, to learn what others were doing, and to be posted generally.

E. Meritt Cole was the Treasurer. His duties were somewhat diversified as he attended to some of the correspondence and occasionally took trips to visit the trade. He was mechanically inclined, so he often worked upon problems for shortening processes of manufacture, at times assisted in getting down the gold and silver stock, and also in making some odd styles of gold goods.

Alpha M. Cheney employed practically all of his time in melting gold and silver and getting down the stock.

Hiram C. Wells was employed constantly in making gold and silver goods.

C. S. Edmonds was employed on similar work.

George W. Wells had charge of the lower Spec Shop, so-called, in which other goods than gold were manufactured, and also had charge of setting the lenses in frames. At this time nearly all of the goods manufactured by the Company were fitted with lenses before they left the factory. There was a limited call for interchangeable lenses, which were also edged in his department.

This little shop, 30 ft. long x 24 ft. wide, two stories high, contained at one time over sixty workmen. These two floors were used for workrooms, and the basement was used for storage purposes. Underneath was a 12″ turbine water wheel, which furnished power for the shop.

His experience in machine work, tool making, etc., enabled him to do quite a little in the improvement and invention of machines and methods of producing goods, which operations at the time he learned his trade were practically all hand work. He has since that time taken out 26 patents, and 27 others have been granted the Company up to the present time. They also own and control many patents.

He had as an assistant Newton C. Cady. Mr. Cady died in 1875, and his death was a great loss to the Company, as he gave promise of being very efficient and capable.

Henry C. Cady came to work for the Company the year it was organized, and held a position as tool and die maker.

As can well be imagined, this little shop was a hive of industry, and altogether too limited for the growing business.

Owing to the increase of business, the two shops were found inadequate for the needs, and the water power insufficient, so a new location was sought.

January 10, 1871, E. M. Cole and G. W. Wells were appointed a committee to report plans for power and site for a new shop.

March 23, 1871, it was voted to purchase of the Central Mills Company a lot of land and water power, lying between the "Bone Mill" and the shop of J. M. and L. D. Clemence, for $2500.00, the water being as much as will be given by a gate 14″ x 24″ under 7 feet head. It was known as

THE ROYAL SMITH PRIVILEGE.

This was a portion of the land set off October 14, 1813, from the estate of Jedediah Marcy to Joseph Marcy. It has passed through the following hands:—

June 14, 1820	Jos. Marcy to Jacob Edwards
Dec. 30, 1836	Jacob Edwards to S. K. Wardwell
March 4, 1837	S. K. Wardwell to Wm. Edwards
March 20, 1837	Wm. Edwards to Royal Smith

This conveyed all of the water rights with the privilege of building canals, taking the water from the river, constructing a dam, etc.

June 22, 1838, Jedediah Marcy deeded to Royal Smith, yeoman, the privilege of building a dam across the Quinebaug River, and raising the water to a height that would not interfere with the privilege of E. D. Ammidown, (the present Central Mills Co.) above on the river and also included the right which was held by Jedediah Marcy and Samuel Hartwell obtained by a deed of assignment from Jonas Lamb February 15, 1836.

Royal Smith appears to have been the first person to improve the water power. He built a saw mill in 1837 or 1838 and a grist mill in 1842.

April 23, 1844, Royal Smith gave possession under a mortgage to John Smith.

March 10, 1853, John Smith to Wm. Edwards. The land west of the present Canal, leading to the American Optical Company and lying between the canal and land of the Central Mills, also a piece of land lying easterly of the upper end of the canal on the bank of the river below the bend.

June 18, 1853, John Smith to Central Mills the remainder of the Royal Smith privilege, including the mill, rights, etc., and covering many reservations near the head of the American Optical Company's canal.

Dec. 4, 1858, Central Mfg. Co. to Manning Leonard and Chester A. Dresser.

Dec. 4, 1858, S. M. Lane, assignee of Central Mfg. Co,, to M. Leonard and C. A. Dresser, other rights now belonging to Central Mills Co.

Dec. 4, 1858, E. D. Ammidown to M. Leonard and C. A. Dresser, rights now belonging to Central Mills Co.

Feb. 16, 1863, M. Leonard and C. A. Dresser to Central Mills Co., present Central Mills privilege and property and Royal Smith privilege down to the line of the Columbian Mfg. Co.

April 11, 1871, Central Mills Co. to American Optical Co, the parcel of land on which the present Main works of the Company stand, and also the right of taking water from the canal passing through said premises, for water power equivalent to an opening of 336 square inches, being the ordinary flow of the Quinebaug River under 7ft. head measuring from the present height of the Columbian Dam as established by the indenture between the grantors and H. C. Ammidown, with the privilege of discharging the water into the Columbian Pond. Price $2500.00.

Apr. 1, 1873, Central Mills to American Optical Co., land on east side of Mechanics street and the privilege of drawing from the canal under 7 ft. head what would pass through an aperture of 336 square inches. This tract of land and power had been leased to one Gillespie, whose rights had been purchased by American Optical Company.

Apr. 1, 1873, Central Mills to American Optical Co., the right to use water from the canal leading from the Quinebaug River to the "Royal Smith privilege" and to draw water through an opening equal to 75 square inches. (This is equivalent to what is referred to in connection with the penstock leading to the Lower Spec Shop).

July 24, 1873, J. M. & L. D. Clemence to American Optical Co. a tract of land of 60 feet on Mechanics street, crossing the canal, adjoining the holdings of American Optical Co.

Jan. 19, 1881, Central Mills Co. to American Optical Company the right to draw water from and through the canal established at a height of 8½ feet as measured by the indenture between the grantor and H. C. Ammidown, an addition of 18″ head.

Mar. 18, 1882, Central Mills Co. to American Optical Co. the land and buildings located on the easterly side of Mechanics street, also the land on each side of the same, the dam across the Quinebaug river and water privilege, subject to a lease given to Wm. P. Plimpton expiring April 1, 1883, and subject to all the rights which J. M. & L. D. Clemence may now have to draw water from and through said canal ($14,000),

The building known as Mechanics Mill was erected in 1866 by Central Mills Co. and contained looms and other machinery connected with their mills. Later it was used as a Bone Mill by D. K. Olney, afterwards as a Spoke Shop, operated by Frank Dean.

Apr. 1, 1879, a portion was leased to the Southbridge Button Co. with power to the extent of 15 H. P. for the term of three years.

July 19, 1881, the two upper floors were leased to the Providence Extractor Co. for a term of three years. The Lens Department was located here from 1883 to 1888.

It was moved to the extension of North street and made into tenements in 1900.

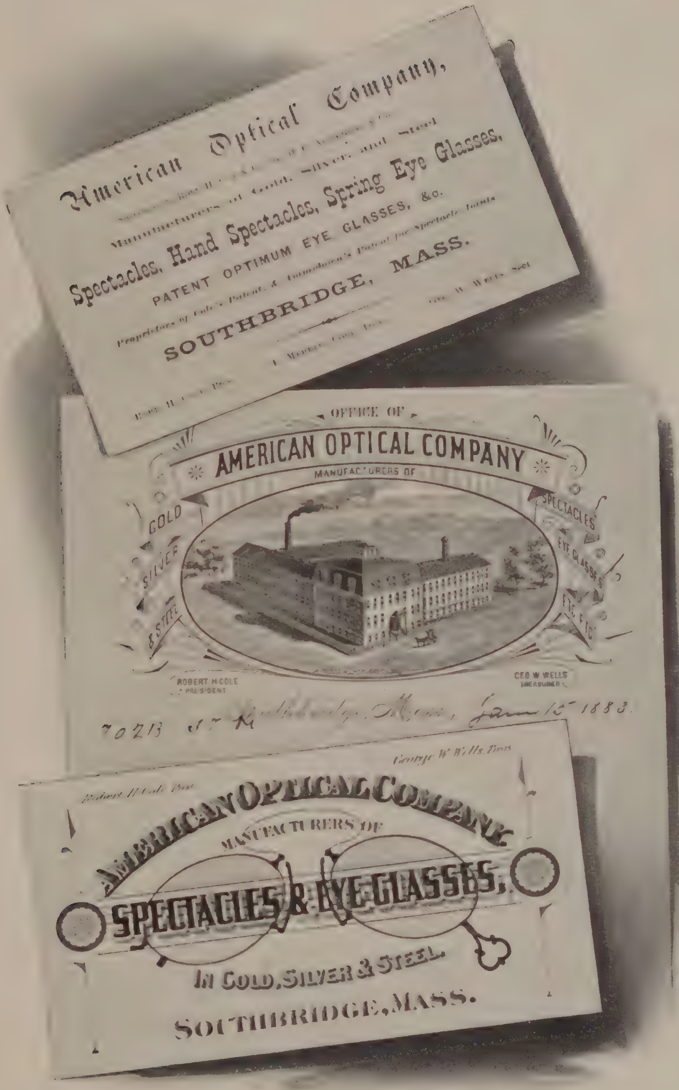
Apr. 8, 1887. Jacob Edwards to American Optical Co. land on westerly side of canal, now a portion of the Park, directly opposite Main Works.

Nov. 11, 1896, Onesime Dragon to American Optical Co. a triangular piece of land on southerly side of the Park.

Sept. 26, 1898, John A. Hall to American Optical Co. the land and buildings on easterly side of Mechanics street, the property upon which Wm. P. Plimpton built his shop and carried on the Spoke business, (removed in 1900 and made into tenements on North street extension),

Oct. 22, 1898, Central Mills Co. to American Optical Co. the remaining real estate of the Central Mills Co. east of Mechanics street, including the "Interval" through which the present canal passes and on which the Carpenter shop was erected in 1908.

Mar. 7, 1899, Saul Donais to American Optical Co. a tract of land



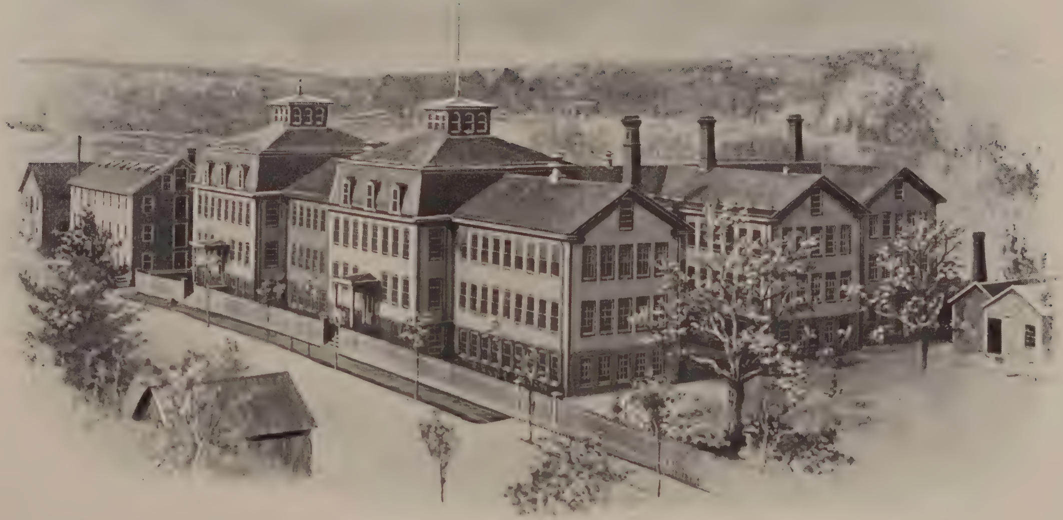
American Optical Company,
Manufacturers of Gold, Silver and Steel
Spectacles, Hand Spectacles, Spring Eye Glasses,
PATENT OPTIMUM EYE GLASSES, &c.
Proprietors of Cole's Patent, & [illegible] Patent for Spectacle Joints
SOUTHBRIDGE, MASS.

OFFICE OF
AMERICAN OPTICAL COMPANY
MANUFACTURERS OF
GOLD SILVER & STEEL
SPECTACLES EYE GLASSES ETC. ETC.
ROBERT H COLE PRESIDENT
GEO W WELLS TREASURER

70213 Southbridge, Mass, Jan 15 1883.

George W. Wells, Treas.
Robert H. Cole, Prest.
AMERICAN OPTICAL COMPANY
MANUFACTURERS OF
SPECTACLES & EYE GLASSES,
IN GOLD, SILVER & STEEL.
SOUTHBRIDGE, MASS.

FORMS OF STATIONERY AND BUSINESS CARDS,
USED PRIOR TO 1885.



FACTORIES OF AMERICAN OPTICAL COMPANY, 1882.

with buildings adjoining the previous holdings of Wm. P. Plimpton. (Buildings removed in 1900).

May 16, 1901, J. M. & L. D. Clemence to American Optical Co. a tract of land 25 feet wide extending along the southerly side of American Optical Co. property.

Nov. 8, 1902, Caroline Page, her property lying east of Mechanics street and north of the so-called Plimpton property mentioned above.

Apr. 20, 1904, Onesime Dragon to American Optical Co. the Dragon property, west side of Mechanics street.

Aug. 17, 1905, Sophie Lord, her property easterly side of Mechanics street and south of North street extension.

Aug. 21, 1905, L. N. Duquette, property on northerly side of East Main street, old Morton property.

1905, property, (balance) south half of Park.

Mar. 18, 1908, J. M. Dupaul. property on northerly side of East Main street, Dupaul homestead.

July 15, 1908, Ellen J. Bartholomew deeded to representative of A. O. Co. all her real estate lying on the easterly side of the river opposite the Main Works of the American Optical Co. and a large portion of the land lying southerly and southwesterly of the Catholic cemetery.

1909, a tract of land was bought of E. T. Torrey, located on the hill east of Bartholomew purchase, about 72 acres.

Dec. 21, 1909, St. Onge property west of Mechanics street and south of North street, block and small house.

About Nov. 1. 1910, Amedee J. Lamoureux, Lamoureux homestead on Crystal street

When Robert H. Cole returned from Europe in 1872 the new factory on Mechanics street was well under way, and he was greatly disturbed that so large a factory had been decided upon, feeling that it was impossible for the business to warrant so large a plant and outlay, and that it would not be likely to be needed for years to come; therefore, he advised selling not only some of the real estate, but a portion of the water power that had been secured, and the following property was sold:

May 10, 1873. American Optical Co. to Wm. Plimpton the land purchased under Gillespie lease (later bought back).

July 24, 1873. American Optical Co. to J. M. & L. D. Clemence the right of taking water from the canal to the amount of 128 quare inches of opening and also the right of 75 square inches, being the amount of water previously drawn through the pen stock leading to the Lower Spec Shop.

May 10, 1873. Land north of Lower Spec Shop to J. M. & L. D. Clemence

June 12, 1877. American Optical Co. sold to Charles Hyde the land upon which the Lower Spec Shop was located, with the building.

July 26, 1871, it was voted to proceed to put in foundation of the new shop and contract for the same.

October 11, 1871, a building committee, consisting of R. H. Cole, E. M. Cole and G. W. Wells, was chosen to contract for the erection of a new shop with Leonard Cutler.

This was the first of the main buildings of A. O. Co. of wood construction, excepting the basement, and the last of which was demolished in the summer of 1908 and replaced with modern factory construction. It was a three-story frame building with a finished brick basement and cost $35,000.00.

When the new factory was occupied in 1872 the work of the six original members of the firm was practically on the same line as in the old shops, except that Hiram C. Wells and C. S. Edmonds had charge of the Gold Department, and George W. Wells had charge of the Steel Department, which was then the largest department in the business, and included metals other than gold and silver; also had charge of the lower room, or stock department, where the metal was gotten out for the goods made in the department mentioned, tool and die making, machine shop, etc., as well as general supervision.

This condition continued practically until the business had materially grown, and other assistants were required. The appointment of H. C. Cady as Superintendent was made February 1, 1886, but long before this he performed the same duties, in having charge of the manufacturing departments, but from this time he assumed more and more of the arduous duties connected with the growing business, especially in the organizing of the rapidly growing departments, both in building of the plant and equipping the same. The Company has ever been fortunate in the loyalty of its management to each other, so that all its work has been planned and carried out as a unit, without friction of any sort.

Thus, not only the supervision of the work was directed by the members of the Company, but the detail, also. Many of the improvements have resulted from this personal and practical knowledge, as well as the design and construction of machinery especially adapted to the needs.

From the time G. W. Wells was elected Treasurer of the Company in 1879, and the burden of the business rested upon him, his time in the factory was very materially curtailed, as the office duties, visiting customers and attending to other business, kept him away from factory and mechanical work. much to his regret. The travelling for the next fifteen years devolved exclusively on him. In the nineties he began to get valuable assistance from his sons, Channing M., Albert B. and J. Cheney Wells. Had it not been for this, he very likely would have given up the strenuous life of taking care of the rapidly growing business.

Their first traveling man, Mr. W. H. Hurlbert, was engaged in 1902, the effort in all these years being to make goods that the customers and consumers could not afford to get along without.

We can merely list the additions to the original buildings and equipment.

MECHANICS STREET PROPERTY.

1871 and 1872 First Shop, floor space 20,700 square feet.

1876 Ice House.

1882 Mechanics Mill Property purchased.

March 1882 Addition and extension of east wing and front (Plans of Geo. W. Wells and H. C. Cady.)

April 1886 South extension.

1889 New office (Demolished 1903.)

Feb. 1891 Extension of east wing 35 feet north and connecting wing 27 feet west.

July 1892 New Dam $2,500.

August 1892 New building Extension Machine Shop—first mill construction building. Later sheathed with brick.

1894 Power House (To be demolished).

1897 The pitch hipped roofs of the factory as first constructed were removed and flat gravel roofs put on.

August 1898 Brick Store House—Demolished 1907.

April 1899—1900 Case Building and wing.

1900 Stables.

May 1901 Gold Filled (Prindeville) South Section of factory.

May 1902 New Front south of Administration Building (Norcross Bros.)

June 1902 Extension of Machine Shop Wing (Prindeville).

1903 Machine D. Basement South Extension.

May 4, 1903 Administration Building (Norcross).

1906 Addition to Gold Filled Building East and North.

1907 (300 feet Building, five stories, extending to canal). Demolished Brick Storehouse and two wings. (Built in 1898).

1908 Carpenter Shop.

1908 Steel and brick building in place of two wings taken down, the last of 1872 building. Center of plant.

1909 2 large Storehouses for lumber and rough material.

1910 Extension to Storehouse for office for Lumber Department, and commercial business in the lumber and finish line commenced.

LENSDALE BUILDINGS.

1888 First building.

1888 New Dam Quinebaug River, Water Wheels.

April 1895 Lens Storehouse.

August 1895 Enlarged Machine Shop.

June 1896 Raised roof.

1900—1901 Brick Grinding Building, with concrete floors, 285 feet x 127 feet. 2 stories.

December 1901 Engines 650 Horse Power.

May 1903 Brick Office.

February 1904 Enlarged Lens Storehouse.

August 1905 New Water Wheel.

1905 Moulding Building—first manufacture of Spectacle Lens Blanks in United States.

1906 Laundry.

1907 Addition to Brick Grinding Building, 200 x 127 feet.

1907 Steel Fence.

1908 Trestle and Siding for Freight.

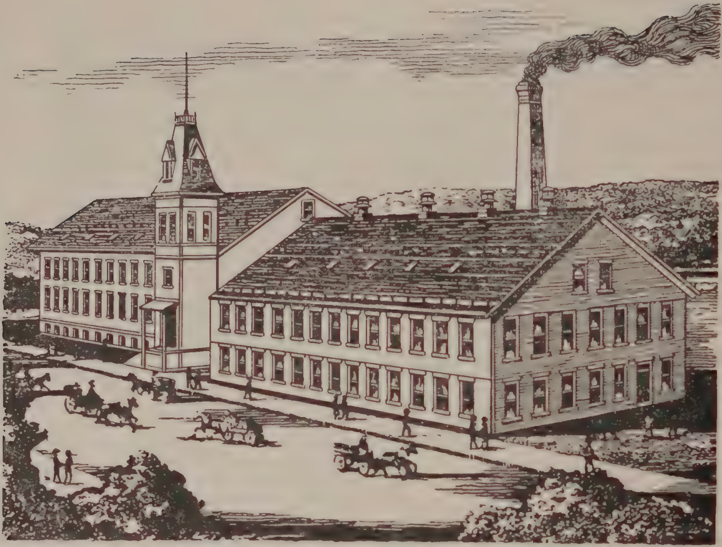
1909—1910 Cement Building, etc., 485x75 feet. (4 stories)

1909—1910 Power House.

The building referred to as being erected in 1909 and 1910 is entirely of reinforced concrete, not a particle of wood being employed in the construction, and the window sash are of steel glazed with double lights of glass to each opening. This building is to be the home of the lenses after they leave the grinding factory, and here they will be inspected and those that

COLUMBIAN MILL, WHICH OCCUPIED PRESENT SITE OF LENSDALE WORKS, BURNED.

MECHANICS MILL, FIRST LENS SHOP.



FIRST LENSDALE WORKS OF AMERICAN OPTICAL COMPANY

COMPLETE BIRD'S EYE VIEW OF AMERICAN OPTICAL COMPANY INCLUDING LENSDALE WORKS, 1892.

are to be made into interchangeable lenses will be edged to standard sizes, labeled, boxed and made ready for shipment. There will also be manufacturing of particular classes of goods in this building One of the leading causes for the erection of this building across the river was to get rid of the dust from the highway and the locomotive on the railroad, as dust is the greatest enemy of lens manufacturing.

The grounds around this factory are tastily laid out and well sodded. In the rear of the factory is a large tract of woodland, which presents the appearance of a wooded park.

PRESENT EQUIPMENT (1910) OF THE WHOLE PLANT:—

Water Power,	600	Horse	Power
Steam Power,	1200	"	"
Oil—6 Diesel Engines,	1500	"	"
	3300	"	"

Electric Light, 6000 Incandescent 400 Horse Power

Floor Space 1910, 16 acres.

The Power House just completed is 145 feet long by 110 feet wide, 38 feet high. and has a chimney 188 feet high, 10 feet in diameter inside, 16 feet in largest diameter.

This Power House is entirely of reinforced concrete construction, and is built to accommodate contents approximately as follows, present and future:—12-225 Horse Power Diesel Engines, 6-375 K. W. Generators, 30 Panel Switchboards, 35 K. W. Motor Driven Exciter, 35 K. W. Steam Driven Exciter, 2-50 Horse Power Motor Driven 3 Stage Air Compressor. 1-150 Horse Power 4 Stage Steam Driven Air Compressor, 12 Feeder Switches, 8 Generator Switches, 6-350 Horse Power Boilers, 2-1400 Horse Power Hot Water Heaters, 1-2100 Horse Power Feed Water Heater, 1-50 ton Ice Machine, 1-8″ Steam Driven Centrifugal Pump, 1-8″ Motor Driven Centrifugal Pump, 2-1000 gallon Fire Pumps, 1-1000 gallon Steam Elevator Pump, 1-1000 gallon Motor Elevator Pump, 1-500 gallon Feed Water Pump.

The large subway, connecting the main factory with the Power House, is 1500 feet long, inside diameter 10 feet wide by 8 feet high. The smaller subway, connecting the Power House with the Lensdale Grinding Building, is 200 feet long, inside diameter 3 feet, 6 inches high by 4 feet, 10 inches wide. These subways contain the piping for hot water heating system, steam pipes, cold water pipes, electric wiring, etc. The one connecting the Power House with the main factory runs underneath the lower floor of the new Lensdale factory, and is covered its entire length with heavy concrete roofing.

STYLE OF BUILDINGS.

A very notable feature which characterized the growth and extension of the A. O. Co. has been the constant study and untiring efforts of the officers of the Company to keep well ahead on modern ideas in building construction with a full realization of the importance of such a policy upon the efficiency and permanency of this industry. As a net result it is significantly shown that there has been a complete evolution wrought, and during the decade just passed the plant has been entirely rebuilt.

Bearing in mind the nature of the products handled and the special requirements thereby necessitated this problem has involved the following questions, all of which have been successfully coped with: Architectural arrangement and appearance, strength and permanency, fire prevention and isolation, natuual lighting and sanitation.

The buildings erected in 1871-72 were of wood, and consisted of three stories, the basement being of brick. The main part was 45 feet square with mansard roof, and wing 65 feet long, 26 feet wide extended to the south; a wing 90 feet long and 26 feet wide extended to the east, from which another wing 45 feet long and 26 feet wide extended to the south, as shown by cut.

The construction of these buildings above the brick basement was entirely of wood, as were many of the additions up to about 1890. Previous to this, however, the outside walls of these wooden structures were filled with brick and mortar poured in from the top to insure safety from fire.

The first development which may be said to have marked the beginning in the application of the policy of progressiveness in buildings was the substitution of flat roofs covered with felt and slag for the hipped or gable roofs of slate, eliminating the objectionable attics, thereby reducing the fire hazard. This was effected in 1897.

In 1899 the first brick and timber wing now known as the north front of the Main Works, was erected. This settled the architectural design of the front elevation and marked a new era in buildings. Thenceforth the reconstruction was rapidly advanced and the pleasing appearance of the front, while settled upon eleven years ago, stands out in contrast to the architectural appearance of many industrial plants erected today. The last of the wooden buildings occupied in 1872, center of plant, were demolished in 1908.

In the manufacture of spectacles, eyeglasses, lenses and sundry lines which are characterized by their small bulk the multiple-story buildings giving a large floor area were adopted as possessing the greatest advantages and all buildings with the exception of the grinding plant are of this type.

In the matter of fire prevention and isolation for all buildings, the best structural practice has been adopted. Complete automatic sprinkler systems are installed. Fire doors shut off automatically any of the separate wings. Electric wiring is entirely enclosed within pipes. Many steel towers with wide stairways provide for the safe exit of employees. In the later types of brick and steel buildings a Z-bar construction between floors and walls would serve to isolate fires and prevent spreading from one floor to another. In the new Lensdale building fire proof construction has been used throughout including cement floors and steel window sash (Detroit Fenestra). To supplement these precautions an elaborate system of fire pumps and apparatus is accessible at all times in case of fire. An organized watch is maintained at night and at all times when the buildings are unoccupied. Serious damage due to fire would be practically impossible.

It is interesting as an evidence of progress in considering the developments in buildings to note the advantages taken of the most modern structural practice with respect to natural lighting. In the main front the size of the windows represented the most advanced ideas on this point at the time of building. Back of the Mechanics street structure the great wings show an interesting evolution. The use of steel floor beams permitted the narrowing of pilasters and correspondingly greater window areas. Subsequently the use of the Z-bar construction, mentioned above, permitted further extensions in window area so that in the wings recently erected the windows extend to the ceilings and a great advantage in interior illumination is gained. The new steel reinforced concrete Lensdale building is an example of the latest and most approveed ideas for factory construction. The steel sash presented new possibilities in size. These windows extend from floor to ceiling, 12½ feet high, and are in some cases 21 feet long.

To insure even better illumination line shafts and belts are greatly reduced in number, in many cases machinery being driven from below the benches.

Not only do these exceptional lighting arrangements tend to increase the efficiency of employees, but they greatly reduce maintenance charges for artificial illumination. With such an extensive glazed area as found in the new Lensdale building, however, it would be a difficult matter to heat the building in severe weather were not all windows double glazed.

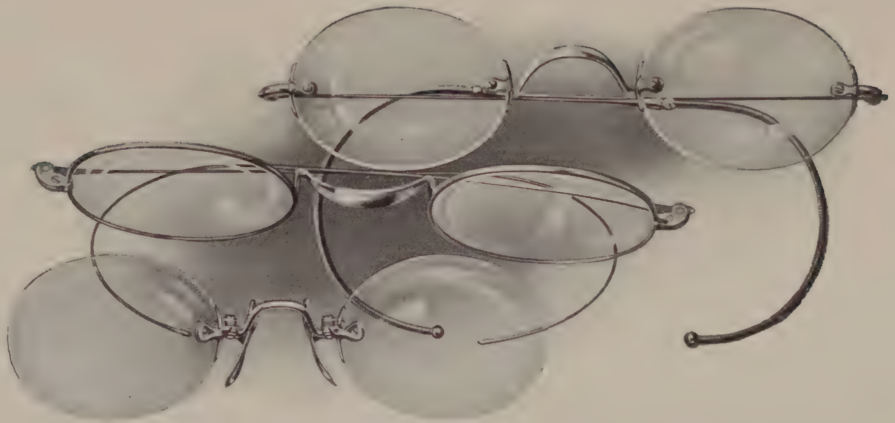
The same liberal policy has governed the installation of all sanitary arrangements throughout the plant. Plumbing of the best and most modern type is used exclusively. Toilets are all placed next to outer walls, allowing direct ventilation. All buildings are kept freshly painted, insuring absolute cleanliness and sanitation. Vacuum cleaning apparatus is in constant use throughout the general offices

In the strength and permanency of buildings the progress is notable. Naturally the earliest construction was entirely of wood. Later construction introduced brick and wood, then brick and steel, and lastly steel reinforced concrete. The necessity for this additional strength in bearing increased floor loads and permitting additional height can be readily understood.

The upper floor of the Administration Building is what might be called a "Banqueting Hall" where meetings with the Foremen or office help, or others, may be held and a banquet served. The size is 61 feet by 28 feet. There is a Library, Dining Room, Kitchen and Serving Room, where meals can be served when it is desired to entertain customers or business people who may be at the factory on business and thus save time, as well as for conference for the Management, Directors' Meetings, etc.; in addition there is a Photographic Studio of ample size, with outfit of cameras, developing room and apparatus.

The Exhibition Room is fitted up with show cases, which are filled with samples of every line of goods manufactured by the Company. This is a very attractive and valuable room, especially when customers visit the factory, and something the Company had been planning for several years.

The American Association of Opticians came here for a visit on



MODERN TYPES OF SPECTACLES AND EYE GLASSES, 1911.

Aug. 22, 1902, were carefully conducted over the works and served a dinner; also the New England Opticians on May 17, 1905.

The dinners to other visitors and heads of Departments, office force, etc., have been delightful social occasions.

The exhibit by the Company at the Town Hall October 27, 1907, when all the manufacturers contributed to an Industrial Exhibit of the local industries, was large, complete and attractive.

From the early days the firm has been alert in the introduction of modern improvements and additions to the kinds of goods made. We mention some of these:

1873. Gas.

1874. Rimless goods made.

1880. Gas machine, new.

1880. Telephone.

1882. Water Supply Company's system extended to Main Works by payment of a bonus.

1883. Lens Department established in Mechanics Mill Building.

1883. Bell.

1884. Machine for getting down "Sweeps".

1884. Trial Frames.

1885. Dioptric System adopted.

1889. Paper Boxes.

1889. Oculists' Test Cases.

1891. Automatic Lens Edging Machines.

1891. Water Wheel installed for power for electric light.

1891. Gold Filled Spectacles and Eyeglasses.

1892. Bundy Workmen's Time Clocks.

1893. Printing.

1894. First Catalogue.

1894. Process for grinding Cylindrical Lenses bought.

1895, Eyeglass Chains.

1897. Spectacle and Eyeglass Cases (200 hands in 1907).

1898. First Cable Tramway.

1899. Pneumatic Tubes.

1900. Weather Bureau Reports and Outfit.

1900. Electric Clocks.

1900. Tower Clock.

1903. Westinghouse Stokers.

1904. Rubber Stamps.

1905. Filter Press.

1906. Steel Fence.

1907. Gold Filled Stock.

1907. New Cable Tramway.

1907. Auto Goggles.

1907. Diesel Engine.

1907. 55 hour week.

1909. There were 5 steel vaults, with time locks and double doors, and 14 brick vaults , in use.

1910. Exhibition Room, 78 feet by 33 feet.

Quinabaug Historical Society Leaflets

Vol. 2. No. 19

AMERICAN OPTICAL COMPANY.

Read by George W. Wells,

At Meeting of Society, Novembeb 29, 1909.

PART THREE.

LONDON OFFICE.

Owing to the increasing demand for goods manufactured by the American Optical Co. it was decided in 1904 to open a London office. The same was established in the spring of 1905, and in 1907 a new building on Hatton Garden, London, was leased for a term of years, and ample quarters in the same were fitted up in a manner to add credit to the home concern. This has from its opening been in charge of their London representative, Mr. J. P. Petherick, and thus far has justified the anticipations of the management.

The Chicago office was opened July, 1909, and the New York office in February, 1910. They expect to open an office in San Francisco early in 1911.

In January, 1910, they commenced to issue a trade paper, under the name of "Amoptico", in the interests of the American Optical Co. The intention is to make known to the trade in general the styles of goods manufactured by the Company and to give such information as will be of interest and value to the trade in general, and to get better acquainted with them, and they with the Company. This publication is gotten up with a great deal of care, is finely illustrated, and has been accepted by the trade as a great assistance to them in keeping in touch with the goods manufactured by the Company.

They plan to issue in 1911, a catalogue containing about 335 pages, in which all lines of goods manufactured by the Company will be illustrated and described.

The American Optical Co. has bought the business of several optical firms:

September 8, 1871. Edmonds Bros., Pawtucket, R. I.

Bromley Bros. Sold to George Birdon, 1874. Sold to American Optical Co. about 1878.

Rhode Island Optical Co., $1500 About 1897.

January 25, 1901, John F. Brady, of Providence, sold to Henry C. Cady and George W. Wells, representing the interests of the American Optical Company, the business of the Stevens Optical Company. July 28, 1901, the above rights were transferred by said Cady and Wells to the American Optical Company.

January 1901, the American Optical Co. purchased the Southbridge Optical Company's plant and stock, tools, etc., located on Marcy street.

March, 1902, the business of the Providence Optical Company was purchased.

December 31, 1891, the Directors voted, subject to the approval of the stockholders, unanimously to subscribe $5,000.00 toward the erection of the building for the Young Men's Christian Association. The following vote was placed on record:—

Whereas, the Amreican Optical Company considers that it has a direct interest in promoting among the people of this community such social and moral influence as may be helpful to cultivate right personal habits, and practices. And to develop good character and personal worth, especially among the young men in its employ now and hereafter; and

Whereas, the Young Men's Christian Association of this place has thus far done most excellent work in that direction, and, with the facilities likely to be secured by the construction of its contemplated new building adapted to its work, may largely increase its means for such influence and power;

Therefore, to the end that the Association may speedily erect and pay for that building, as a permanent home, and that the young men employed by that Company may always feel that they may justly claim an interest in that institution, to the extent, at least, of the sum hereinafter named, freely and cheerfully purchased for their special benefit;

H. C. Cady

Born in Southbridge December 1, 1845.
Southbridge Public Schools.
Entered employ of Robt. H. Cole & Co., 1869
Made Superintendent, 1877.
Elected a Director, 1879.

VOTED. Unanimously that the Treasurer of this corporation be, and he is hereby, authorized, for and in its behalf, to subscribe and pay to the Association aforesaid the sum of Five Thousand Dollars, provided, and upon the express conditions, that the same shall be used for the construction of such building, and that at least Seventy Thousand Dollars, including that raised or expended for the purchase of its building lot, be subscribed or pledged to the fund of the Association devoted to that object.”

April 28, 1906, the sum of $1000 was subscribed to aid the San Francisco sufferers on account of the earthquake calamity.

Until the year 1884 all spectacle lenses, excepting a very few, manufactured by hand to fit special cases, were imported, and the growing demand upon the Company was such that it was practically impossible to get a proper and adequate supply, owing to the indifference of the foreign manufacturers to increase their factories, as they could not believe that the demand from the United States was legitimate. It was also impossible to get goods of the proper quality and sure to focus. The orders were often a year in being filled, and in some cases it was impossible to fill orders for frames and lenses, which was the usual way in which goods were then purchased, for the want of the lenses to go with them.

THE FOLLOWING IS A MEMORANDUM,

Memorandum under date of February 15, 1871, showing the result of examination of imported lenses by G. W. Wells. This unreliability of the focus numbers in the packages as they were imported was an important feature in determining the Company to enter into the manufacture of lenses, so as to get something more reliable not only in quality but in focus. The first column of figures shows the marking on the package as it was received from the European factory. The figures at the right show the different foci or powers of lenses in the package.

It will be noted that this memorandum covers 15 numbers from 5″ to 30″, and that the mis-focus in these numbers was so great as to number 66 powers that were represented in this list of numbers. In some cases one number contained 11 powers. These conditions were unbearable and led to the absolute necessity of manufacturing their own lenses.

5″	6, 7.
6″	5, 6, 7, 9.

7″	6, 7, 8, 9.
8″ I Pcx	7½, 8, 8½.
9″ “	8, 8½, 9, 9½
10″ “	8½, 9, 9½, 10, 11.
11″	9, 10, 11, 12, 13.
12″	11, 12, 13, 14.
14, 15, 16,	11, 12, 13, 14, 15, 16, 17, 18.
17″	15, 16, 18.
18″	15, 16, 17, 18, 19.
28″	26, 28, 30, 32, 34, 36, 38, 40, 44, 46, 48.
30″	18, 26, 28, 30, 36, 38, 40, 48.

In 1883 the first steps were taken toward producing lenses in Southbridge. It was a mighty task; there were very few persons in this country who knew anything about the practical problems involved, and importers were prophesying failure.

April 1, 1883, work was commenced in earnest in building machinery and getting in position to manufacture spherical lenses. In the fall of the same year machinery was placed in the Mechanics Mill building, size 60 feet by 30 feet, two stories and basement, and on January 18, 1884, the first finished lenses were produced. Much time, labor and money were spent in this venture, with some failures and discouragements. All the machinery produced was condemned in the fall of 1884, at which time there were 80 spindles running. At this time an entirely new system of machinery was built to supplant the old wooden machinery. The first iron machinery in the world with the old English motion was installed in 1885.

The quarters becoming insufficient, the site of the Columbian Mills was bought of George W. Wells March 18, 1887.

The manufacture of Cylinder and Compound Lenses was commenced in 1893 and the dioptric system of measurements adopted.

The Company purchased and operated the Hardy-Delaney patents for grinding cylinder lenses which was a decided improvement over the old methods.

FROM HOLMES AMMIDOWN'S HISTORICAL COLLECTION VOL. 2, 1874.

COLUMBIAN COTTON MILL.

"This mill was erected in the year 1821, and burned December 18, 44. It was located upon a part of a tract of land known at the

C M Wells

Born in Southbridge, August 13, 1870.

Southbridge Public Schools until Summer 1886.
Nichols Academy, Dudley, one and one-half years.
Phillips' Academy, Andover, one-half year.
Mass. Institute Technology, three years.

Entered Shipping Department AOCo June 1, 1891, and worked factory hours (fifty-eight hours a week) for seven years. The books of the company show wages were raised November 1891 to $1.50 per day, April 1892 raised to $1.75 per day. December of the same year increased to $2.00 per day.

Worked through various office departments, spending as much time as possible in the factory.

In 1893 commenced to call upon customers east of Kansas City, making one trip, and sometimes two trips a year.

Elected a Director, February 18, 1901.
Elected Treasurer, February 9, 1903.
Elected Vice-President, January 6, 1908.

time the Town of Southbridge was incorporated in 1816 as the "'Morris Farm" then in the possession of Edwin and Lyman Morris. About the year 1815 they made a partial excavation for a canal. This was the first movement for occupying the water power connected with this privilege. The Morris estate, containing 160 acres of land (including the blacksmith shop, which has recently been used as a place for making spectacles by the Southbridge Optical Co., and the dwelling house opposite, then used by the Morrises as a shop for making barrels) became about this time the property of Hon. James B. Mason of Providence, and by his deed of December 7, 1817, he conveyed the whole estate to Col William Foster, who sold the same entire to Major Calvin Ammidown, April 14, 1818, in consideration of $4600. Subsequently the right of water flowage and location for dam on the north side of river was, after some litigation, obtained of Jedediah Marcy.

The business was conducted under a general partnership up to the year 1825. In June 1825 the General Court granted an incorporation of the Company, capital $36,000. The manufacture of cotton was continued from that time until 1844, when the mill was destroyed by fire, and the affairs of the Company went into liquidation for final adjustment, and the entire real estate of the Company became the property of Mr. Ebenezer D. Ammidown, January 22, 1849."

From other sources we learn that the persons connected with the firm in the early years (1821-1826) were Calvin Ammidown, Ebenezer D. Ammidown, Moses Plimpton, Samuel Hartwell, Samuel L. Newell, Stillman Plimpton, Sessions Mason and Joseph Congdon, the latter serving as Superintendent and building a brick house which he never occupied. The Mill contained about 3000 spindles and 80 looms, and cost $40,000. A profitable business was carried on most of the time until it was destroyed by fire, which was attributed to an accident, as a boy was working there very early in the morning, but some claimed that it was not accidental. The power was obtained from an upright shaft, around which Nathan Newell was caught and killed. The row of six tenement houses was built the same year as the mill. Great excitement was caused by the murder of Mrs Milton Streeter by her husband, in the western house of the series, and a newspaper in our museum contains an illustrated account of the same, not unlike the present day, in spirit.

"The Mill site and water power remained unoccupied until 1856, when Ebenezer D. Ammidown, through the aid of his son-in-law, Mr. Barker, of Cincinnati, erected a brick mill on the premises, and by the assistance of Holmes Ammidown, of Boston, filled his mill with machinery in the year 1858, and commenced the manufacture of cotton jeans and flannels. This business was conducted by Malcolm and Henry C., sons of Mr. Ammidown, to whom the property had been conveyed by deed. Later it became the sole property of Henry C. Ammidown, November 19, 1859. On the 5th of October, 1866, the estate was conveyed by deed to Henry T. Grant, of Providence, R. I., in consideration of $37,000. Mr. Grant at once commenced to erect a new mill adjoining the brick mill, which was finished in 1867, and filled with 4736 spindles and 108 looms, and put in operation with other necessary machinery for making print cloths June, 1867."

EXTRACTS FROM A LETTER RECEIVED FROM W. A. H. GRANT NOVEMBER 29, 1908.

"In the spring of 1867, Henry T. Grant commenced the manufacture of print cloths and continued in the same business until 1876, or early in 1877.

In July, 1877, W. A H. Grant and brothers bought the property from Frederick Burgess and continued the manufacture of print cloths until March 11, 1881.

The property was idle for a time and was then bought by Mr. E. P. Chapin for Mrs Harriet A. Tyler and in April, 1883, was started on the manufacture of cotton yarns, and was so contined until the fire that occurred in the early fall of 1884.

The property remained idle from the time of the fire until purchased by George W. Wells in 1886, from Mrs. Tyler."

Mr. Grant goes on to say that Southbridge was blessed in the olden days with an unusual number of steady, self-educated men of strong individualities who had the courage of their convictions, and gave this small town, without railroad connections, an unusual standing for a town of its size, and the seed they planted has borne good fruit and Southbridge is in very many ways an ideal country town.

April 13, 1870, Henry T. Grant sold to the Southbridge Savings Bank the Columbian Property for a consideration of $15,000 00. (I think that the Bank sold this property to one Burgess, and later sold to W. A. H. Grant and brothers.)

July 1, 1886, George W. Wells purchased this property from Harriet A. Tyler, the business being transacted through E. P. Chapin on behalf of Mrs. Tyler.

March 18, 1887, George W Wells deeded to the American Optical Co. the land and water power known as the "Columbian Privilege."

July 18, 1888, Mary M. Grant, Henry T. Grant and Frank P. Grant deeded to George W. Wells, the tract of land lying on the southerly side of the road leading to Sandersdale, and lying between the so-called "Fort Sumter" property and the raceway leading to the Sandersdale Print Works. Also tract of land on the northerly side and bounded on the north by the Quinebaug River, east by land of Ed Hopwood, west by land of grantee, formerly the Columbian Company, and south by the highway.

January 26, 1889, George W. Wells deeded to the American Optical Co. a certain tract of land at Lensdale lying between the main highway and the Railroad, known as the "Coal Dump," and buildings thereon. This is the property on which is now located the siding and trestle built in 1908.

December 1, 1898, George W. Wells sold to the Town of Southbridge that portion of the Columbian property previously referred to, lying on the northerly side of the Quinebaug River, to be used for sewer purposes by the Town of Southbridge, for $5,000.00

September 19, 1907, the Town of Southbridge deeded to the American Optical Co. the same tract of land that the town purchased from George W. Wells above noted, the consideration of the same being $10,000,00, comprising about 52 acres.

June 22, 1908 Charles O. Montigny deeded to the American Optical Co. the tract of land on the northerly side of the highway leading from Southbridge to Sandersdale. This property was formerly owned by Mr. Grant and sold to G. W. Wells, and sold by him to Mr. Young.

This new location has been named "Lensdale" and its growth has kept pace with the Main Works.

A brief glance at the statistics shows the gain :—

Total Sales :

1877 335,172 pair Spectacles and Eyeglasses.

Produced in :

1886 1,304,280 pair Spectacles and Eyeglasses.
1897 2,281,908 pair Spectacles and Eyeglasses.
1902 3,060,648 pair Spectacles and Eyeglasses.

1906	3,698,472 pair Spectacles and Eyeglasses.
1902	1,600,000 Spectacle and Eyeglass Cases.
1906	2,433,620 Spectacle and Eyeglass Cases.
1902	1,720 Oculists' Test Cases.
1906	3,076 Oculists' Test Cases.
1884	121,392 pair Lenses.
1897	2,660,676 pair Lenses.
1902	4,128,780 pair Lenses.
1908	12,000 000 pair Lenses.
1897	90 tons Lens Stock used.
1902	140 tons Lens Stock used.
1908	413 tons Lens Stock used.
1897	1000 Employees.
1902	1700 Employees.
1907	2000 Employees.
1909	2500 Employees,
1897	$425,000 Pay Roll.
1902	$672,648 Pay Roll.
1907	$1,000,000 Pay Roll.
1909	$1,250,000 Pay Roll.

(This does not include Pay Roll for outside work, buildings, etc.)

1897	Lensdale, 280 Employees.
1907	Lensdale, 600 Employees.
1909	Lensdale, 1200 Employees.
1897	Gold and Silver used, $564,000.
1902	Gold and Silver used, $713,000.
1907	Gold and Silver used, $875,000.

NUMBER OF SPINDLES IN LENS GRINDING MACHINERY.

1888	1143	1905	3544
1894	2035	1908	6144
1902	2842	1910	7407

LABOR DIFFICULTIES.

The Labor Unions have seldom attempted to influence the employees. In 1903 there was more activity, and the following notices were posted:—

"This factory will be closed tonight, and remain closed until

A B Wells

Born in Southbridge November 19, 1872.
Southbridge Public Schools.
Rutgers College Preparatory School 1888.
Rutgers College 1889.
Harvard 1890-1891.
Entered Lensdale plant of the AOCo October 1, 1891.
Devoted much of his time to building up this most important branch of the business.
Elected a Director February 3, 1902.
Elected Treasurer January 6, 1908.

further notice, for purposes of reorganization. Wages will be paid at the factory on demand. Any of our employees who are desirous of resuming work upon the reopening of the factory, and who wish for information, will communicate with the Superintendent or their foreman.

Nov. 9, 1903. AMERICAN OPTICAL CO."

"We learn that a story is being circulated among our workmen that the Union is going to run our factory and that those who have remained at work and refused to join the union will be thrown out of employment. We want to say to those who have remained at work that we shall continue to run our own business without any outside dictation, and that they need have no fear whatsoever of losing their positions. We shall give steady work and protection to all who desire work in our factory.

Nov. 13, 1903. AMERICAN OPTICAL COMPANY."

The trouble indicated in the above was practically brought about by the labor agitators coming into Southbridge and endeavoring to influence, by organization, the workmen to act against the interests of the Company, and the threats that were made, which would undoubtedly have been carried out had opportunity offered, were such that the management believed—not only for their own protection but for the interests of the workmen at large—that it was necessary to take such steps as would terminate this condition of affairs, and enable the Company to run their own business as they had (as they believed) in a satisfactory manner to their employees, in all the years of their existence From that time on, there has been absolutely no trouble.

PRESENT OFFICERS OF THE COMPANY.

George W. Wells, Henry C. Cady, Channing M. Wells, Albert B. Wells, J. Cheney Wells, Directors. George W. Wells, President. Channing M. Wells, Vice President. Albert B. Wells, Treasurer. J. Cheney Wells, Clerk and Secretary. Henry C. Cady, Superintendent.

AMERICAN OPTICAL COMPANY EMPLOYEES 1869.

Armes, William H.
Baker, Metcalf
Horn, A. O.
Howe, Daniel M.

Baylies, Geo.
Baylies, H.
Bachelder, Chester
Blanchard, F. G.
Blait, Nelson
Bowker, John W.
Brown, Daniel V.
Brown, J. R.
Cady, Newton
Cady, Henry C.
Cady, Geo.
Cady, Franklin
Cary, Andrew
Clark, John
Clemence, Daniel
Clemence, Fielder
Colton, Henry M.
Coombs, Abial
Coombs, Adoniram J.
Cooper, Judson
Cook, H. A.
Corey, James
Corey, Ella
Covillion, Felix
Day, M. M.
Duffy, E.
Dupaul, Jos.
Douty, C. S.
Eccleston, Lewis
Eddy, William P.
Edmonds, E.
Freeman, James
Freeman, William
Green, Elon R.
Hager, C. H.
Hardenber, William
Hays, John
Hibbard, John F.
Holmes, Alfred E.
Horton, Horatio N.
Horton, William E.
Jacques, L.
Kimball, H. A.
Lee, Andrew S.
Leland, T. J.
Marble, Frank H.
Martin, Alec
McFarland, C. M.
McIntire, Orin
McIntire, L.
McKinstry, Lemuel
McVey, Robert
Mellony, L. M.
Morse, Henry D.
Olds, Linus
Pierson, H. E.
Potter, Chas. A.
Pratt, Chas.
Putney, Ezra A.
Reynolds, Monroe
Rice, Samuel
Ritchie, Felix
Rose, Chauncy
Senecal, Pascal
Senecal, Alex.
Sherman, Benj.
Silk, Bernard
Starrett, Henry G.
Stone, Jos.
Swift, E. S.
Tiffany, Austin
Tiffany, E. P.
Tiffany, Harlan P.
Turner, H. C.
Tully, M. J.
Vinton, F. M.
Ware, Jos. B.
Welch, J.
White, Jas.
Whittemore, Albert
Worthington, Arnold

J. C. Wells

Born in Southbridge, November 11, 1874.

Southbridge Public Schools until Summer 1891.
Worcester Academy September 1891 to March 1893.
Preparing in Worcester Academy to enter Yale 1893, but instead decided to enter the factory.

Went to work in Shipping Department AOCo March 2, 1893. As office boy did the dusting, and running printing press, and helped with shipping.

Entered Order Department April 28, 1894, and remained on that work for about two years.

After that took up general office work and made yearly calls upon the trade as far west as Chicago and Kansas City. Last regular trip in October and November 1902.

Elected Clerk of corporation, February 3, 1902 Served one year.
Re-elected Clerk of corporation, January 7, 1907.
Elected Secretary, February 9, 1903.
Elected a Director, January 6, 1908.

Entire plant of the American Optical Company, 1912.

There were 85 employees in all, 33 of whom are now living.

Men who were in the employ of the American Optical Co. the year it was incorporated, 1869, and are now in the service of the Company:

George W. Wells,	entered	employ	1864
F. G. Blanchard,	"	"	1868
H. C. Cady,	"	"	1869
H. P. Tiffany,	"	"	1869
Andrew Carey,	"	"	1869
Alex. Martin;	"	"	1869
Pascal Senecal,	"	"	1867

TARIFF.

From the early days the Company has expressed itself in no uncertain tones upon tariff legislation. In 1888, Mr. Cole wrote an article showing the growth of the business, He stated that previous to 1850 the number of employees could not have been over six. All steel spectacles were imported at that time, a fair quality selling from $15.00 to $18.00 per dozen. The importers seemed determined to kill the business, but, under the tariff of 1862-63 it developed quite rapidly, bringing in home competition, reducing the price of goods, even under high wage rate, and the use of imported steel. In 1888, nothing but rough lens stock was imported and a better article was sold for $2.00 a dozen than for $8.00 and $9.00 per dozen fifteen years previously. Since so large a percentage of steel goods was labor, no further reduction of the present rate of 45 per cent. could be allowed.

A public meeting was held and resolutions adopted protesting against further proposed reductions in duty in 1894 (?) and signed by over 600 spectacle makers. This was addressed to Congress.

The American Optical Co. forwarded a letter to the Senators and Congressmen from Massachusetts in 1894 protesting against proposed reductions in duty, since the products were so largely the result of labor and the wages ought not to be lowered.

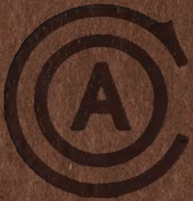
In an interview in 1901 Mr. Wells stated that the Company did not favor a reduction, for, under the present protection, the prices of goods were constantly decreasing, yet the wages paid were in advance of those in foreign countries.

G. W. Wells, always a believer in protective tariff for home industries, has made a very careful study of the same for many years, so that since the eighties he has represented the Company in Washington before either the Tariff Finance Committee of the Senate or the Ways and Means Committee of the House at the revision of every tariff from that time to the present year, and, for the most part, the industry has had fair protection, as they have never demanded anything unreasonable, but simply endeavored to get a tariff protection that would equal the difference in cost of labor. This has been a great factor in building up the business, as without it the business never could have prospered and it would have been an utter impossibility to have done anything in the lens manufacturing line. It has been impossible, however, to secure the manufacture of lens stock in this country, so that all of this material is imported.

The growth of the business has been steady and great. It shows what hard work, skill and careful planning will do. The founders were men well known in our midst, since their business and home life have been spent here.

They have been identified with the religious, social and civil welfare of the town, aside from the industrial pursuits.

American Optical Company



Historical Sketch
1833 = 1911